ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276

THOMAS V. SKINNER, DIRECTOR

217/524-3300

June 13, 2000

Safety-Kleen Corporation
Attn: Phillip Retallick
1301 Gervais Street, Suite 300
Columbia, South Carolina 29201

Re: 9450000000 -- State of South Carolina
Safety-Kleen Corporation
Log No. PS00-048
RCRA Permit File

Dear Mr. Retallick:

This letter has been written in response to your letter dated March 15, 2000 regarding Safety-Kleens "continued-use program". The continued-use program collects used solvents from Safety-Kleen customers for use in cleaning drums at Safety-Kleen branch facilities or use in scrap metal washing at a Safety-Kleen facility in Kentucky. As discussed previously we have focused our response on the drum washing program. In your letter you asked that the State of Illinois concur that solvents in the continued-use program are considered to be exempt from the definition of a "solid waste" and hence not a "hazardous waste". The Illinois EPA has carefully reviewed the information dated April 25, 1997, October 13, 1997, July 17, 1998, September 1, 1998, February 8, 1999, May 14, 1999 and March 15, 2000. The State of Illinois cannot concur that Safety-Kleen's continued-use program qualifies for any exclusion from the definition of solid waste. In your letter you indicate that approval for the continued use program has been given by USEPA. The letter from USEPA was conditional. It is the conditions of the USEPA letter which highlight the same concerns that the Illinois EPA has with the continued-use program. Our reasons are as follows:

1. The continued-use solvent must not only substitute for a commercial product, but it must also be an "effective" substitute. Safety-Kleen has provided no information which demonstrates that the continued-use solvent is an "effective substitute", that is, that it retains any of its solvent properties. Safety-Kleen has not provided a MSDS or specification that continued-use solvent must meet.

   Safety-Kleen has not compared continued-use solvent specifications to those of other dirty solvents marketed to the general public to demonstrate that the continued use solvent is a commercial product. Information provided to date has been MSDS on solvents before initial use.

Drums which are used to store and transport non-hazardous Safety-Kleen's Solvent 150 are rewashed with virgin 150 solvent to remove any contamination from the washing with continued-use solvent.

Spent solvents which are not placed into the continued-use program have historically been used by Safety-Kleen to clean the drums and are currently substituted for continued use solvent when it is not available. It does not appear that continued-use solvent program is the application of a product-like cleaning agent, but a continuation of rendering the drum RCRA empty using practices commonly employed to remove materials from that type of container.

2. The used solvent is not always used for washing drums that actually need it. Normally, a drum containing a cleaning solvent would not have to be washed. For the most part it appears that the continued-use solvents is routinely being used to clean the very drum that they were shipped in. Therefore, the solvent as received is considered to be waste.

3. The used solvents are used in excess of what would normally be required to wash the drum. According to the study Safety-Kleen performed approximately 90% of the drums can be cleaned only using 7.3 gallons. Yet Safety-Kleen proposes to set the drum washing machine at 13.3 gallons for each drum. The 13.3 gallons corresponds directly to the amount of solvent contained in a large number of the containers received by Safety-Kleen. Therefore, in many instances it takes one container of continued use solvent to clean one drum. The drum cleaned by the continued-use solvent may in fact be the same drum used to transport the continued-use solvent to the facility. Normal degreasing operations would include reuse of the solvent until it was no longer an effective substitute instead of discarding the solvent after one use.

In summary, the solvent is not required to meet specification, possess any specific cleaning abilities, be reused until it is no longer effective or otherwise managed as a commercial product.

Should you have any questions or comments regarding the contents of this letter, please contact Mark A. Schollenberger, P.E. of my staff at 217/524-3307.

Sincerely,

Joyce L. Munie, P.E.
Manager, Permit Section
Bureau of Land

JLM:MAS:bjh\2343.WPD

cc: Harriet Croke, USEPA Region V

USEPA

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6762

Refer to: 1970600001 -- Will County
Safety Kleen-Mokena
ILD000665851
RCRA Permit Log No. 95

February 1, 1991

Safety Kleen
Attn: Ellen Jurczak
9631 W. 194th Place
Mokena, Illinois 60448

Dear Ms. Jurczak:

The Illinois Environmental Protection Agency has reviewed Part B of the RCRA permit application for one (1) hazardous waste container storage unit (S01), one (1) hazardous waste storage tank (S02), and one (1) mineral spirits return and fill station dated December 11, 1990 and received December 12, 1990 for the above referenced facility. The Agency has determined that your RCRA Part B permit application is complete. We are now beginning the technical review of the application to assure the facility's conformance to the requirements of 35 Ill. Adm. Code Parts 703 and 724.

If you have any question regarding this subject, feel free to contact Ron Harmon of my staff at 217/782-6762.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:RH:sap/0300q,19

cc: Division File
Maywood Region
George Hamper
Compliance Section
Ron Harmon
Administrative Record

95 Part B

USEPA

safety-kleen®

**FEDERAL EXPRESS**

August 21, 1990
RO 90-252

Mr. Lawrence W. Eastep
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62794-9276

Subject: Mokena Service Center

Dear Mr. Eastep,

This has been prepared in response to your letter dated July 6, 1990. Please find enclosed responses to your comments, revised text and revised exhibits for the subject facility.

If you have any questions or require further information, please contact me on extension 2550.

Sincerely,

Rob Omiecinski

Rob Omiecinski
Environmental Permit Writer

RO/dfh

cc: P. Jefferson, Chicago Reg. Mgr.
Br. Mgr. (5-034-04)
G. Garneau, GAS

RECEIVED
AUG 22 1990
IEPA-DLPC

777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708/697-8460 FAX 708/697-4295

SAFETY-KLEEN CORP.
MOKENA SERVICE CENTER
RESPONSES TO COMMENTS DATED 7/6/90

Comment:

B-2 Topographic Map:

B-2a General Map Requirements:

The applicant failed to provide an adequate number of copies of the topographic map, only one copy was received. The legal boundaries of the facility have not been properly identified.

Response:

Copies of the topographic map are enclosed which indicate the property boundaries.

Comment:

B-4 Traffic Information:

The applicant failed to provide information documenting the adequacy of on-site roads and the presence of on-site traffic control signs.

Response:

This information has been added to section 1.2.1.

Comment:

D-1a(1) Description of Containers:

The applicant failed to provide the approximate number of each type of container, construction materials, dimensions and usable volumes, DOT specifications or other manufacturer specifications, liner specifications (if applicable), container condition (new, used, reconditioned), and markings and labels for containers used to treat or store hazardous waste. The response to the NOD indicated this information has been provided in Section 3.2.2.

Section 3.2.2 was not provided as indicated in the response to the NOD.

Response:

This information has been added to section 3.3.2.

**Comment:**

D-1a(2) Description of Containers:

The procedures used to manage the sludge accumulated in the tanks and dumpsters have not been described.

**Response:**

This information is included in section 1.2.2.

**Comment:**

D-1(a)(3)(a) Requirement for the Base or Liner to Contain Liquids:

The applicant failed to demonstrate the capability of the base to contain liquids, including:

- A statement that the base is free of cracks or gaps;
- Demonstration of imperviousness of base to wastes and precipitation;
- Base design and materials of construction;
- An engineering evaluation of the base's structural integrity; and
- Discussion of compatibility of the base with wastes.

No discussion of the compatibility of the secondary containment base and the wastes stored in containers, has been included in the revised Section 3.3.2 as indicated in the response to the January 3, 1989 NOD.

The sump in the secondary containment area could not be considered an adequate secondary containment system since the application has not demonstrated the entire container storage area is sloped toward the sump and exterior walls of the container storage area is designed to prevent the liquids from escaping under or through the wall of the container storage room into the other parts of the facility.

**Response:**

This information is included in section 1.2.2.

The entire drum storage area is surrounded by a 4" high curb except where there is a trench. The base and curbing have been sealed with an epoxy coating rendering them impervious to contain leaks and spills. Liquids resulting from a spill will generally flow toward the collection trench and any liquid not in the trench may be collected using solvent pads.

**Comment:**

D-2 Tank Systems

The following items were not provided for all tank systems. (Note that a tank system includes the tank and its associated ancillary equipment and containment system.)

D-2a(1) Assessment of Existing Tank System's Integrity:

The applicant failed to provide an adequate written assessment that is reviewed and certified by an independent, qualified, registered professional engineer, on the structural integrity and suitability of each tank system for handling hazardous waste. At a minimum, this assessment should be considered the following: (1) design standard(s), if available according to which the tank and ancillary equipment were constructed; (2) hazardous characteristics of the wastes that have been and will be handled; (3) documented age of the tank system, if available (otherwise, an estimate of the age); and (4) results of a leak test, internal inspection, or other tank integrity examination.

The original tank assessment was conducted in 1988. The certification does not contain the wording identified in 35 IAC 702.126(d).

The assessment does not address the adequacy of the design standards.

The assessment recommended the installation of high level alarms on the tanks, automatic shut offs on the pumps, a well monitoring point in the backfill around the tank constructed for use in leak detection and annual testing.

No evidence has been presented to indicate Safety-Kleen has complied with the above recommendations or that annual retesting in accordance with 35 IAC 725.293(L) or inspection of the cathodic protection in accordance with 35 IAC 725.295 are being conducted.

**Response:**

A tank assessment is enclosed which includes the corrected certification statement. The assessment addresses the adequacy of the design standards.

In addition, Safety-Kleen has installed the audio/visual high level alarm system and the waste pump in the return and fill shelter has an automatic shutoff linked to the high level alarm. Also, the waste solvent tank was tested in April, 1990 and tested tight. Results of this test are enclosed.

**Comment:**

D-2f(1)(b) Requirements for Secondary Containment and Leak Detection:

The applicant failed to demonstrate that the secondary containment system has been or will be designed, installed and operated to prevent any migration of waste or accumulated liquid from the tank system to the soil, groundwater, or surface water at any time during its use. Also, a demonstration that the secondary containment system can detect and collect releases and accumulated liquids is required. This demonstration should have included at least the following:

- Plans and specification of the materials of construction used to construct or line the system which show that these materials are compatible with the wastes in the tank system.

- A demonstration that the system has sufficient strength and thickness to prevent failure caused by any of the following:

  -- pressure gradients (including static head and external hydrological forces);

  -- physical contact with the wastes;

  -- climatic conditions; and

  -- stresses from daily operation (including stresses from nearby vehicular traffic).

- Calculations which prove that the secondary containment system is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

- A description of the leak detection system, including its operating principle, design features and operating procedures. Demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then specify the earliest practical time that detection can take place. Indicate why this longer period does not pose a threat to human health and the environment.

- A demonstration that the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

- Document how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then the applicant should have specified the earliest practical time that removal can take place and indicate why this longer period does not pose a threat to human health and the environment.

No provision for removal of precipitation, leaks or spills which do not require implementation of the contingency plan have been included in the application. Plans to upgrade or replace existing tank systems to meet the requirements of 724.293(b)-(c) have not been included.

Response:

This information has been added to section 1.2.2.

Please note that Safety-Kleen will relocate this site by June 1992. Since the tank was installed new in 11/87, Safety-Kleen has until 11/92 to either take the tank out of service or upgrade the system to meet the tank standards required by 40 CFR 265.193(a)(3).

Comment:

D-2f(1)(d) Secondary Containment and Leak Detection Requirements for Ancillary Equipment:

Ancillary equipment is defined as any device including, but not limited to, such devices as piping, fittings, flanges, valves and pumps, that are used to distribute, meter or control the flow of waste:

a. from its point of generation to storage or treatment tanks;

b. between waste storage and treatment tanks to a point of disposal on-site; or

c. between waste storage and treatment tanks to a point of shipment for disposal off-site

The ancillary equipment associated with each tank system must be provided with a secondary containment system as described in the following paragraphs, except for:

1. Aboveground piping (exclusive of flanges, joints, valves and other connections) that are visually inspected for leaks on a daily basis;

2. Welded flanges, welded joints and welded connections, that are visually inspected for leaks on a daily basis;

3. Sealless or magnetic coupling pumps, that are visually inspected for leaks on a daily basis; and

4. Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

The applicant failed to demonstrate that each tank system's ancillary equipment will be provided with secondary containment such as jacketing, double-walled piping, or a trench. Describe the containment system, and demonstrate that it is (will be) designed, installed and operated to prevent any migration of waste or accumulated liquid to the soil, groundwater or surface water at any time during its use. Also, demonstrate that the containment system will detect and collect releases and accumulated liquids. This demonstration should have included at least the following:

- Specification of the materials of construction used to construct or line the system demonstrating that these materials are compatible with the wastes in the tank system.

- A demonstration that the system has sufficient strength and thickness to prevent failure caused by any of the following:

-- pressure gradients (including static head and external hydrological forces)

-- physical contact with the wastes

-- climatic conditions

-- stress of daily operation (including stresses from nearby vehicular traffic).

- calculations which prove that the secondary containment will be placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

- A description of the leak detection system, including its operating principle, design features and operating procedures. The applicant failed to demonstrate that the leak detection system will detect the failure of either the primary or secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then the applicant should have specified the earliest practical time that detection can take place. The applicant failed to indicate why this longer period does not pose a threat to human health and the environment.

- A demonstration that the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

- Documentation describing the procedures which will ensure that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then the applicant should have specified the earliest practical time that removal can take place and indicate why this longer period does not pose a threat to human health and the environment.

Safety-Kleen failed to provide details of the revisions which will be made to the ancillary equipment which must be conducted by 1992 to comply with the requirements of 35 IAC 724.293(f).

**Response:**

A tank assessment addressing the above information is enclosed. Further information regarding procedures implemented to remove spilled or leaked wastes and precipitation is included in section 1.2.2. Also as stated earlier, Safety-Kleen will relocate this site by June 1992.

**Comment:**

F-3a(4) Water for Fire Control:

A demonstration that the facility has water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems has not been provided.

**Response:**

This information has been added to the Preparedness and Prevention Plan, Abstract, as well as section 4.3.3.

**Comment:**

F-4(c) Water Supplies:

No information has been provided in Section 4.3, as indicated in the response, which demonstrates the facility has taken adequate provisions to prevent contamination of the water supply (i.e., backflow preventers, vacuum breakers, etc.).

**Response:**

This information has been added to section 4.3.1.

**Comment:**

F-5(c) Management of Ignitable or Reactive Wastes in Containers

Sketches, drawings and data demonstrating that containers of ignitable or reactive waste are located at least 15 meters (50 feet) from the facility's property line are inadequate.

Property lines are not clearly defined, as a result, the distances of the regulated units from the property lines are unclear.

**Response:**

This facility does not satisfy the fifty foot buffer zone required for the storage of ignitable wastes. Safety-Kleen will clean the dumpsters and the drums of sediment will be shipped off site the day of a scheduled pick up. There will be no storage of the dumpster sediment in the drum storage area.

**Comment:**

F-5e Management of Ignitable or Reactive Wastes in Tank Systems:

The applicant failed to describe the operational procedures used for storing such wastes in tanks that includes specific information on: (1) how the waste is treated, rendered, or mixed before or immediately after the placement in the tank so that it is no longer considered ignitable and comply with 724.117(b); or the waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to react or ignite; or the tank is used solely for emergencies; (2) how facilities that treat or store ignitable or reactive waste in covered tanks comply with the National Fire Protection Association's buffer zone requirements for tanks.

**Response:**

This information is included in sections 1.2.2 and 3.3.1.

**Comment:**

G-1 General Information

The operator was not identified in the contingency plan. The facilities site plan was not included as part of the contingency plan.

**Response:**

This information has been added to section 4.0.

**Comment:**

I-1d(2)

The applicant failed to submit a contingent post-closure care plan for each regulated tank that does not have adequate secondary containment meeting the requirements of 35 IAC 724. 293.

**Response:**

The contingent post-closure care plan is enclosed.

**Comment:**

I-1e Closure of Disposal Units:

Closure plans for tank systems in which wastes or contaminated materials are to remain at closure must describe how the unit will be closed, including a description of the final cover to be established and its expected performance. Contingent closure plans for tank systems, surface impoundments and waste piles also must provide these descriptions.

**Response:**

The contingent post-closure plan for the tank system is enclosed. Safety-Kleen intends to clean close this facility, eliminating the need for closure as a landfill.

**Comment:**

I-1e(1)(a) Elimination of Liquids:

The applicant failed to describe how free liquids are to be removed or solidified at closures.

**Response:**

This information is included in the appropriate sections of the Closure Plan.

**Comment:**

I-1e(1)(b) Waste Stabilization:

The applicant failed to describe the methods to be used to stabilize remaining wastes to support the final cover, including:

- Stabilization methods, equipment and materials;
- Required bearing strength of the stabilized waste;

- Demonstration of stabilized waste bearing strength; and
- Methods for bearing strength determination during closure.

**Response:**

Please see response to comment I-1e.

**Comment:**

I-1e(2) Cover Design:

The cover design and installation procedures were not thoroughly described. This submission should have included:

- Drawings showing cover layers, thicknesses, slopes and overall dimensions;
- The common name, species and variety of the proposed cover crop;
- Descriptions of synthetic liners to be used, including chemical properties, strength, thickness and manufacturer's specifications;
- Description of rationale for cover selection;
- Descriptions of and specifications for protective materials placed above and below synthetic liners;
- Clay liner characteristics, including thickness and hydraulic conductivity; and
- Clay liner construction plans, including lift sequencing.

**Response:**

Please see response to comment I-1e.

**Comment:**

I-1e(3) Minimization of Liquid Migration:

If the cover design which is proposed is different than the EPA-recommended designs (refer to Permit Applicant's Guidance Manual), the applicant should provide engineering calculations showing that the proposed cover will provide long-term minimization of liquid migration through the cover.

**Response:**

Please see responses to comment I-1e.

**Comment:**

I-1e(4) Maintenance Needs:

The applicant failed to demonstrate that the cover system will function effectively with minimum maintenance needs.

**Response:**

Please see response to comment I-1e.

**Comment:**

I-1e(5) Drainage and Erosion:

The applicant failed to provide the following information:

- Data demonstrating that the proposed final slopes will not cause significant cover erosion;
- Descriptions of drainage materials and their hydraulic conductivities;
- Engineering calculations demonstrating free drainage of precipitation off of and out of the cover; and
- Estimation of the potential for drainage-layer clogging.

**Response:**

Please see response to comment I-1e.

**Comment:**

I-1e(6) Settlement and Subsidence:

The applicant failed to describe potential cover settlement and subsidence, considering immediate settlement, primary consolidation, secondary consolidation, and creep and liquefaction including the following information:

- Potential foundation compression;
- Potential soil liner compression; and
- Potential waste consolidation and compression resulting from waste dewatering, biological oxidation and chemical conversion of solids to liquids.

The effects of potential subsidence/settlement on the ability of the final cover to minimize infiltration were not described.

**Response:**

Please see response to comment I-1e.

**Comment:**

I-1e(7) Cover Permeability:

The applicant failed to demonstrate that the cover system will have a permeability less than or equal to that of the liner system.

**Response:**

Please see response to comment I-1e.

**Comment:**

I-1e(8) Freeze/Thaw Effects:

The applicant failed to identify the average depth of frost penetration and describe the potential effects of freeze/thaw cycles on the cover.

**Response:**

Please see response to comment I-1e.

**Comment:**

I-2 Post-Closure Plan:

A copy of the most recent post-closure plan and the contingent post-closure plan have not been submitted. The contingent post-closure plans failed to address Items I-2a, b and c.

**Response:**

The contingent post-closure plan addressing items I-2a, b and c is enclosed.

**Comment:**

I-2a Inspection Plan:

The applicant failed to describe the inspections to be conducted during the post-closure care period, their frequency, the inspection procedure, and the logs to be kept. The following items, as applicable, should have been included in the inspection plan:

- Security control devices;
- Erosion damage;
- Cover settlement, subsidence and displacement;
- Vegetative cover condition;
- Integrity of run-on and run-off control measures;
- Cover drainage system functioning;
- Leak detection system;
- Leachate collection and removal system;
- Gas venting system;
- Well condition; and
- Benchmark integrity.

The rationale for determining the length of time between inspections should have been provided.

**Response:**

This information is included in the enclosed contingent post-closure plan.

**Comment:**

I-2b Post-Closure Monitoring Plan:

The applicant failed to describe the monitoring to be conducted during the post-closure care period, including the procedures for conducting and evaluating the data gathered from:

- Groundwater monitoring;
- Leachate collection and removal; and
- Leak detection between liners.

**Response:**

This information is included in the enclosed contingent post-closure plan.

**Comment:**

I-2c Post-Closure Maintenance Plan:

The applicant failed to describe the preventive and corrective maintenance procedures, equipment requirements and material needs including the following items in the maintenance plan, as applicable:

- Repair of security control devices;
- Erosion damage repair;
- Correction of settlement, subsidence and displacement;
- Mowing, fertilization and other vegetative cover maintenance;
- Repair of run-on and run-off control structures;
- Leachate removal system maintenance; and
- Well replacement.

The rationale to be used to determine the need for corrective maintenance activities has not been provided.

**Response:**

This information is included in the enclosed contingent post-closure plan.

**Comment:**

I-3 Notice in Deed and Certification:

Existing facilities must submit a copy of the notice or notation recorded in the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that (1) the land has been used to manage hazardous wastes; (2) its use is restricted; and (3) the survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each area of the facility, has been filed with the County Recorder, to any local zoning authority or the authority with jurisdiction over local land use and with the Agency. For hazardous wastes disposed prior to January 12, 1981, the applicant should have identified the type, location and quantity of the hazardous waste to the best of the owner or operator's knowledge and in accordance with any records the owner or operator has kept. A certification has not been submitted to the Agency, signed by the owner or operator, which indicates the notification in the deed has been properly recorded.

**Response:**

The above information is enclosed.

**Comment:**

I-6 Post-Closure Cost Estimate:

A copy of the most recent post-closure cost estimate, calculated to cover the cost, in current dollars, of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure plan has not been provided. The cost must be updated annually using an inflation factor.

**Response:**

This information is included in the enclosed contingent post-closure plan.

**Comment:**

I-7e Financial Test and Corporate Guarantee for Post-Closure Care:

The applicant failed to submit a letter signed by the owner's or operator's chief financial officer and worded as specified by 40 CFR 264.151(f), a copy of the independent certified public accountant's report on examination of the applicant's financial statements for the latest fiscal year, and a special report from the certified public accountant. Parent company must guarantee post-closure care for a subsidiary facility, the corporate guarantee must accompany the preceding items.

**Response:**

This information is enclosed.

**Comment:**

K. PART B CERTIFICATION:

K-2 Engineering Certification:

Technical data, such as design drawings, specifications and engineering studies, should have been certified (sealed) by a Professional Engineer who is licensed to practice in the State of Illinois in accordance with Ill. Rev. Stat., par. 5101, Sec. 1 and par. 5119, Sec. 13.1.

**Response:**

The above information is enclosed.

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

217/782-5562

August 7, 1990

Administrator John Downs
Village of Mokena
11004 Carpenter Street
Mokena, Illinois 60448

Dear John,

As per your request I've enclosed the text of the Safety-Kleen Service Center/Mokena facility Part B permit application and the IEPA's draft denial of that permit. Additional information regarding the facility application is available at the Mokena Public Library. If you have further questions please don't hesitate to call me at 217/782-5562.

Sincerely,

Mara McGinnis
Community Relations Coordinator

MM:kh/1-1

Illinois Environmental Protection Agency · P.O. Box 19276, Springfield, IL 62794-9276

# FINAL DECISION NOTICE

The Illinois Environmental Protection Agency provides notice pursuant to 35 Ill. Adm. Code 705.201 (c), that a final RCRA/HSWA hazardous waste permit was denied to the Safety-Kleen Corporation in Mokena, Illinois on October 19, 1990.

The applicant may petition the Illinois Pollution Control Board to contest this permit decision pursuant to 35 Ill. Adm. Code 705.212. Provisions of the U.S. EPA permit decision may be appealed pursuant to 40 CFR 124.19.

The deadline to appeal this permit decision is November 23, 1990.

For additional information or to receive a copy of the RCRA/HSWA permit or the Agency response to comments, please contact:

Illinois Environmental Protection Agency
Government and Community Affairs
Attention: Mara McGinnis - #5
2200 Churchill Road
P.O.Box 19276
Springfield, Illinois 62794-9276

217-782-5562

KL:rl:2-005/97

USEPA

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6762

Refer to: 1970600001 -- Will County
Safety Kleen -- Mokena
ILD000665851
RCRA Permit Log No. 95
RCRA -- Administrative Record



October 19, 1990

Safety Kleen Corporation
777 Big Timber Road
Elgin, Illinois 60123

Gentlemen:

The Agency hereby gives notice of Final Denial of a Part B permit to Safety Kleen Corporation to operate its RCRA hazardous waste management units in Mokena, Illinois. The final denial is based on the administrative record contained in the Agency's files. The contents of the administrative record are described in 35 Ill. Adm. Code, Section 705.211.

Under Section 39(d) of the Illinois Environmental Protection Act (Ill. Rev. Stat. 1986, Ch. 111-1/2, par. 1039), the Agency is required to provide the applicant with a written statement concurrent with the denial of a permit explaining the basis for its decision. We have determined that the application is incomplete. The specific reasons for denial of this permit are contained in Section IV of the attached Fact Sheet. Since the application is not complete, a full technical review could not be conducted. Therefore the reasons for the denial are the items that the Agency found incomplete during our review.

Within 35 days after the notification of the final permit decision any person who filed comments on the letter of intent to deny may petition the Board to contest the final permit decision. The petition shall include a statement of the reasons supporting a review, including demonstration that any issues raised in the petition, were previously raised during the public comment period. The appeal process and limitations are addressed in 35 IAC 705.212. Nothing in this paragraph is intended to restrict the appeal rights under Section 40(b) of the Environmental Protection Act (35 IAC 212(a)). Upon the effective date of the Final Permit Denial, the facility must begin closure in accordance with 35 IAC Part 725, Subpart G.

If you have any questions concerning the denial of the Part B permit, please contact Ted Dragovich of my staff at 217/782-6762.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:TD:jk/3712n,1-2

Enclosure: Attachment A

cc: Division File, w/enclosure
Northern Region
USEPA, w/enclosure
Glenn Savage, w/enclosure
Charlie Zeal, w/enclosure
Keri Luly

1970600001 -- Will County
Safety Kleen -- Mokena
ILD000665851
RCRA Permit Log No. 95


Fact Sheet
Notice of Denial
RCRA Hazardous Waste Permit

Deficiencies Resulting From The Illinois Environmental Protection Agency's Review of the Revised RCRA Part B Permit Application Log #95.

I. INTRODUCTION

Safety Kleen's Mokena facility, located at 9631 West 194th Place, Mokena, Illinois, is an existing facility which has been operating since October 1, 1977. On June 4, 1985, USEPA received a Part A application from Safety Kleen Corporation.

The Part B permit application cited herein is the application accompanying the February 11, 1988 letter from Ellen J. Jurczak, P.E. of Safety-Kleen Corp., received by the Agency on February 16, 1988. On March 17, 1988 the Agency issued a Notice of Deficiencies (N.O.D.). The Agency reviewed Safety Kleen's November 3, 1988 response to the first NOD and issued a second NOD on January 3, 1989 which required the facility to respond no later than May 1, 1990. The applicants response was received on May 8, 1990. This response was not adequate to deem the Application complete and begin a technical review. Failure to correct these deficiencies as required by 35 IAC, Subtitle G, Section 705.123 was the basis for this draft permit denial. The facility further responded to the draft denial with a revised application on August 21, 1990. This application was received at the Agency on August 22, 1990. Following a review of the revised application, the Agency determined the response was not adequate to deem the application complete and begin a technical review. The specific deficiencies are described in Section IV of this attachment.

The Agency has concluded that some of the missing information is of such vital importance to the permit decision that issuance of a Part B permit with a compliance schedule or some other mechanism for obtaining the necessary information would not be feasible.

II. DESCRIPTION OF FACILITY

A. General

Safety-Kleen stores and bulks hazardous waste and special waste in tanks and containers for treatment, recycling or disposal off site. The facility has failed to adequately respond to previous notices of deficiencies issued by the Agency. As a result the Agency has

determined that there are sufficient grounds for termination of Interim Status in accordance with 35 IAC 703.157(b). Upon the effective date of the final permit denial the facility must begin closure in accordance with 35 IAC Part 725 Subpart G.

III. HAZARDOUS WASTE MANAGEMENT ACTIVITIES

1. Tanks

According to information provided by Safety-Kleen in their Part B application, hazardous wastes are stored in three storage tanks, a 12,000 gallon below ground tank and two above ground tanks (identified as wet dumpsters) with an undetermined capacity, and two container storage areas with a total combined capacity of 4264 gallons. One of the container storage areas (2,184 gallon capacity metal shed) may be exempt from permitting under 35 IAC 723.112.

IV. REASONS FOR DENIAL OF THIS PERMIT

1. The application was not submitted in the format required by the Agency (in accordance with the "RCRA Part B Permit Application Decision Guide"). The Agency has the authority to require information submitted in a prescribed fashion under 35 IAC, 702.106 and 702.123. The Agency feels it is essential to receive the Part B application in this format to facilitate timely review and to allow future modifications to be reviewed and incorporated into a Part B Permit.

2. [Ref. D-1(a)(3)(a), 35 IAC 724.275(a)]

The application was incomplete because the applicant failed to provide:

- A statement that the secondary containment system is free of cracks or gaps
- Demonstration of the imperviousness of the base to wastes and precipitation
- Base design and material of construction
- An engineering evaluation of the base's structure integrity
- A discussion of compatibility of the base with the wastes

3. [Ref: D-2 (35 IAC 703.202(a), 724.292)]

   The application was incomplete because drawing D13102 was referenced in the tank assessment, but not provided in the application.

4. [Ref: K-1 (35 IAC 702.126)]

   The application was incomplete because the facility operator did not certify the revised application, dated August 21, 1990.

5. [Ref: K-2 (35 IAC 703.182, Illinois Professional Engineering Act)]

   The application was not complete because all engineering features including design drawings, specifications and engineering studies with the exception of the tank assessment were not certified.

LWE:TD:jk/3712n,3-5

USEPA

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6762

DRAFT DENIAL

Refer to: 1970600001 -- Will Clair
Safety Kleen/Mokena
ILD000665851
Part B Permit, Log No. 95
RCRA - Administrative Record

July 6, 1990

Safety-Kleen Corp.
Attn: Donald W. Brinckman
777 Big Timber Road
Elgin, Illinois 60123

Dear Mr. Brinckman:

The Agency hereby gives notice of intent to deny a Part B permit to Safety Kleen Corp. to operate its RCRA hazardous waste management units located in Will County, Illinois. The application for Part B permit was received by this Agency on February 16, 1988 and revised to its present form on May 10, 1990.

The Agency is required, under Section 39(d) of the Illinois Environmental Protection Act (Ill. Rev. Stat. 1986, ch. 111 1/2, par. 1039), to provide the applicant with a written statement concurrent with its denial of the permit explaining the basis for its decision. The reasons for denial of this permit are contained in Attachment A.

The Agency has been reviewing the application for completeness. Until such time that the application is deemed complete, a full technical review is not conducted. Therefore the reasons for denial are the items that the Agency found incomplete, plus items which the Agency noted were technically deficient during our completeness review.

Enclosed is a Fact Sheet and a notice of intent to deny the RCRA Part B permit for Safety Kleen's Mokena facility. The tentative denial is based on the administrative record contained in the Agency's files. The contents of the administrative record are described in 35 Illinois Administrative Code (IAC), Section 705.144.

Under the provisions of 35 Illinois Administrative Code 705.141(d), the tentative denial and administrative record must be publicly noticed and made available for public comment. The Agency must also provide an opportunity for a public hearing. The Agency has not scheduled a public hearing at the current time, however, any interested party may request a public hearing. The public comment period will close on the forty-fifth day after the first date of publication of the public notice.

During the comment period, the applicant or any interested party may submit comments to the Agency on the letter of intent to deny the application for the Safety Kleen's Part B permit, Log #95. At the close of the comment period, the Agency will prepare a response to significant comments.

The Agency shall issue a final permit decision after the close of the public comment period unless the Agency decides to reverse the tentative decision and issue a draft permit. The applicant has 35 days after the effective date to petition the Board to contest the final permit decision. The appeal process and limitations are addressed in 35 IAC 705.212. Upon the effective date of the Final Permit Denial, the facility must begin closure in accordance with 35 IAC Part 725, Subpart G.

If you have any questions concerning this letter of intent to deny the Part B permit, please contact Ted Dragovich at 217/782-6762.

Very truly yours,

Lawrence W. Eastep by Doc

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:TJD:bjh/sp/2338n/1,2

Enclosures: Fact Sheet
Attachment A

cc: Division File, W/Enclosures
Maywood Region, W/Enclosures
USEPA, W/Enclosures
Enforcement, W/Enclosures
Harry Chappel, W/Enclosures
Glenn Savage, W/Enclosures
Ted Dragovich, W/Enclosures
Marylin Sabadazcka, USEPA, W/Enclosures

# FACT SHEET
# NOTICE OF INTENT TO DENY
# RCRA HAZARDOUS WASTE PERMIT
# Safety Kleen Corp, Mokena Illinois
# ILD000665851

This fact sheet has been prepared pursuant to the requirements of Title 35, Illinois Administrative Code (35 IAC), Section 705.143. The fact sheet is intended to be a brief summary of the principal facts and significant factual, legal, methodological, and policy questions considered in preparing a draft denial of a RCRA permit. Safety Kleen Corp. is seeking a permit to store hazardous waste in tanks and containers. Pursuant to 35 IAC, 705.143(a), this fact sheet is sent to the applicant and to any other person who requests it.

## I. INTRODUCTION

Safety Kleen's Mokena facility, located at 9631 W. 194th Place, Mokena, Illinois, is an existing facility which has been operating since October 1, 1977. On June 4, 1985, USEPA received a Part A application from Safety Kleen Corporation.

The Part B permit application cited herein is the application accompanying the February 11, 1988 letter from Ellen J. Jurczak, P.E. of Safety-Kleen Corp., received by the Agency on February 16, 1988. On March 17, 1988 the Agency issued a Notice of Deficiencies (N.O.D.). The Agency reviewed Safety Kleen's November 3, 1988 response to the first NOD and issued a second NOD on January 3, 1989 which required the facility to respond no later than May 1, 1990. The applicants response was received on May 8, 1990. This response was not adequate to deem the Application complete and begin a technical review. Failure to correct these deficiencies as required by 35 IAC, Subtitle G, Section 705.123 is the basis for this draft permit denial. The specific deficiencies are described in Attachment "A" to this fact sheet.

The Agency has concluded that some of the missing information is of such vital importance to the permit decision that issuance of a Part B permit with a compliance schedule or some other mechanism for obtaining the necessary information would not be feasible.

II. DESCRIPTION OF FACILITY

A. General

Safety-Kleen stores and bulks hazardous waste and special waste in tanks and containers for treatment, recycling or disposal off site. The facility has failed to adequately respond to previous notices of deficiencies issued by the Agency. As a result the Agency has determined that there are sufficient grounds for termination of Interim Status in accordance with 35 IAC 703.157(b). Upon the effective date of the final permit denial the facility must begin closure in accordance with 35 IAC Part 725 Subpart G.

III. HAZARDOUS WASTE MANAGEMENT ACTIVITIES

1. Tanks

According to information provided by Safety-Kleen in their Part B application, hazardous wastes are stored in three storage tanks, a 12,000 gallon below ground tank and two above ground tanks (identified as wet dumpsters) with an undetermined capacity, and two container storage areas with a total combined capacity of 4264 gallons. One of the container storage areas (2,184 gallon capacity metal shed) may be exempt from permitting under 35 IAC 723.112.

Detailed comments regarding Safety-Kleen's Storage Units can be found in Attachment A.

IV. PROCEDURES FOR REACHING A FINAL DECISION

Pursuant to 35 IAC 705.162(a)(2), the public is given forty-five (45) days to review the application and comment on the draft denial prior to IEPA taking any final action. The comment period will begin on the first date of publication of the public notice in a major local newspaper of general circulation. The comment period will end on the forty-fifth day after the first date of publication of the public notice. When the Agency makes its final decision, or when the Agency decides to change its decision, notice will be given to the applicant and each person who has submitted written comments or requested notice of the final permit decision. The denial will become effective thirty-five (35) days after service of notice of the decision or at a later date if review is requested under 35 Ill. Adm. Code 705.212. In addition, copies of the draft denial fact sheet and application are available for review at the Mokena Community Public Library located at 11327 195th St., Mokena, Illinois.

Any interested person may submit written comments on the draft denial at the following address:

Illinois Environmental Protection Agency
Government and Community Affairs, Attn: Keri Luly
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

The administrative record is open for public inspection at the IEPA Springfield headquarters from 8:30 a.m. to 5:00 p.m., Monday through Friday. The administrative record contains the permit application, fact sheet, and other supporting documents and correspondence submitted to the IEPA. Inspections of the administrative record must be scheduled in advance by contacting the Public Notice Clerk at the above address.

In response to requests received during the comment period or at the discretion of the IEPA, a public hearing may be held to clarify one or more issues concerning the draft denial of the application. A request for a public hearing must be in writing and shall state the nature of the issues proposed to be raised in the hearing. Public notice will be issued forty-five (45) days before any public hearing. If a hearing has been scheduled with the public notice, then further requests are not necessary.

For further information, please contact Keri Luly, Director's Office, Illinois Environmental Protection Agency at 2200 Churchill Road, Post Office Box 19276, Springfield, Illinois 62794-9276 or by telephone at 217/782-5562.

Attachment "A"
Safety Kleen/Mokena
RCRA Part B Permit Log 95

The following deficiencies are the results of a review of the response to the Agency's January 3, 1989 NOD which was Safety-Kleen's third attempt to submit a complete application for this facility. This response was due May 1, 1990 and received May 8, 1990.

The applicant failed to provide an entirely new application in the format outlined in the "RCRA Part B Permit Application Decision Guide" as requested in the January 3, 1989 NOD.

B-2 Topographic Map: 703.183(s), 703.185(c), 703.185(d), 724.195, 724.197

B-2a General Map Requirements: 703.183(s)

The applicant failed to provide an adequate number of copies of the topographic map, only one copy was received. The legal boundaries of the facility have not been properly identified.

B-4 Traffic Information: 703.183(j)

The applicant failed to provide information documenting the adequacy of on-site roads and the presence of on-site traffic control signs.

D-1a(1) Description of Containers: 724.271, 724.272

The applicant failed to provide the approximate number of each type of container, construction materials, dimensions and usable volumes, DOT specifications or other manufacturer specifications, liner specifications (if applicable), container condition (new, used, reconditioned), and markings and labels for containers used to treat or store hazardous waste. The response to the NOD indicated this information has been provided in Section 3.2.2.

Section 3.2.2 was not provided as indicated in the response to the NOD.

D-1a(2) Description of Containers: 724.271, 724.272

The procedures used to manage the sludge accumulated in the tanks and dumpsters have not been described.

D-1(a)(3)(a) Requirement for the Base or Liner to Contain Liquids: 724.275(a)(1)

The applicant failed to demonstrate the capability of the base to contain liquids, including:

- A statement that the base is free of cracks or gaps;
- Demonstration of imperviousness of base to wastes and precipitation;

- Base design and materials of construction;
- An engineering evaluation of the base's structural integrity; and
- Discussion of compatibility of the base with wastes.

No discussion of the compatibility of the secondary containment base and the wastes stored in containers, has been included in the revised Section 3.3.2 as indicated in the response to the January 3, 1989 NOD.

The sump in the secondary containment area could not be considered an adequate secondary containment system since the applicant has not demonstrated the entire container storage area is sloped toward the sump and exterior walls of the container storage area is designed to prevent the liquids from escaping under or through the wall of the container storage room into the other parts of the facility.

D-2 Tank Systems

The following items were not provided for all tank systems. (Note that a tank system includes the tank and its associated ancillary equipment and containment system.)

D-2a(1) Assessment of Existing Tank System's Integrity: 703.202(a), 724.292

The applicant failed to provide an adequate written assessment that is reviewed and certified by an independent, qualified, registered professional engineer, on the structural integrity and suitability of each tank system for handling hazardous waste. At a minimum, this assessment should be considered the following: (1) design standard(s), if available according to which the tank and ancillary equipment were constructed; (2) hazardous characteristics of the wastes that have been and will be handled; (3) documented age of the tank system, if available (otherwise, an estimate of the age); and (4) results of a leak test, internal inspection, or other tank integrity examination.

The original tank assessment was conducted in 1988. The certification does not contain the wording identified in 35 IAC 702.126(d).

The assessment does not address the adequacy of the design standards.

The assessment recommended the installation of high level alarms on the tanks, automatic shut offs on the pumps, a well monitoring point in the backfill around the tank constructed for use in leak detection and annual testing.

No evidence has been presented to indicate Safety Kleen has complied with the above recommendations or that annual retesting in accordance with 35 IAC 725.293(L) or inspection of the cathodic protection in accordance with 35 IAC 725.295 are being conducted.

D-2f(1)(b) Requirements for Secondary Containment and Leak Detection: 724.293(b)-(c), 703.202(g)

The applicant failed to demonstrate that the secondary containment system has been or will be designed, installed and operated to prevent any migration of waste or accumulated liquid from the tank system to the soil, groundwater, or surface water at any time during its use. Also, a demonstration that the secondary containment system can detect and collect releases and accumulated liquids is required. This demonstration should have included at least the following:

- Plans and specification of the materials of construction used to construct or line the system which show that these materials are compatible with the wastes in the tank system.

- A demonstration that the system has sufficient strength and thickness to prevent failure caused by any of the following:

  -- pressure gradients (including static head and external hydrological forces);

  -- physical contact with the wastes;

  -- climatic conditions; and

  -- stresses from daily operation (including stresses from nearby vehicular traffic).

- Calculations which prove that the secondary containment system is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

- A description of the leak detection system, including its operating principle, design features and operating procedures. Demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then specify the earliest practical time that detection can take place. Indicate why this longer period does not pose a threat to human health and the environment.

- A demonstration that the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

. Document how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then the applicant should have specified the earliest practical time that removal can take place and indicate why this longer period does not pose a threat to human health and the environment.

No provision for removal of precipitation, leaks or spills which do not require implementation of the contingency plan have been included in the application. Plans to upgrade or replace existing tank systems to meet the requirements of 724.293(b)-(c) have not been included.

D-2f(1)(d) Secondary Containment and Leak Detection Requirements for Ancillary Equipment: 703.202(g), 724.293(f)

Ancillary equipment is defined as any device including, but not limited to, such devices as piping, fittings, flanges, valves and pumps, that are used to distribute, meter or control the flow of waste:

a. from its point of generation to storage or treatment tanks;

b. between waste storage and treatment tanks to a point of disposal on-site; or

c. between waste storage and treatment tanks to a point of shipment for disposal off-site

The ancillary equipment associated with each tank system must be provided with a secondary containment system as described in the following paragraphs, except for:

1. Aboveground piping (exclusive of flanges, joints, valves and other connections) that are visually inspected for leaks on a daily basis;

2. Welded flanges, welded joints and welded connections, that are visually inspected for leaks on a daily basis;

3. Sealless or magnetic coupling pumps, that are visually inspected for leaks on a daily basis; and

4. Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

The applicant failed to demonstrate that each tank system's ancillary equipment will be provided with secondary containment such as jacketing, double-walled piping, or a trench. Describe the containment system, and demonstrate that it is (will be) designed, installed and operated to

prevent any migration of waste or accumulated liquid to the soil, groundwater or surface water at any time during its use. Also, demonstrate that the containment system will detect and collect releases and accumulated liquids. This demonstration should have included at least the following:

- Specification of the materials of construction used to construct or line the system demonstrating that these materials are compatible with the wastes in the tank system.

- A demonstration that the system has sufficient strength and thickness to prevent failure caused by any of the following:

  -- pressure gradients (including static head and external hydrological forces)

  -- physical contact with the wastes

  -- climatic conditions

  -- stress of daily operation (including stresses from nearby vehicular traffic).

- calculations which prove that the secondary containment will be placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

- A description of the leak detection system, including its operating principle, design features and operating procedures. The applicant failed to demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then the applicant should have specified the earliest practical time that detection can take place. The applicant failed to indicate why this longer period does not pose a threat to human health and the environment.

- A demonstration that the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

- Documentation describing the procedures which will ensure that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then the applicant should have specified the earliest practical time that removal can take place and indicate why this longer period does not pose a threat to human health and the environment.

Safety Kleen failed to provide details of the revisions which will be made to the ancillary equipment which must be conducted by 1992 to comply with the requirements of 35 IAC 724.293(f).

F-3a(4) Water for Fire Control: 724.132(d)

A demonstration that the facility has water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems has not been provided.

F-4(c) Water Supplies: 703.183(h)(3)

No information has been provided in Section 4.3, as indicated in the response, which demonstrates the facility has taken adequate provisions to prevent contamination of the water supply (i.e., backflow preventers, vacuum breakers, etc.)

F-5(c) Management of Ignitable or Reactive Wastes in Containers 703.201(c), 724.276

Sketches, drawings and data demonstrating that containers of ignitable or reactive waste are located at least 15 meters (50 feet) from the facility's property line are inadequate.

Property lines are not clearly defined, as a result, the distances of the regulated units from the property lines are unclear.

F-5e Management of Ignitable or Reactive Wastes in Tank Systems: 703.202(f), 724.298

The applicant failed to describe the operational procedures used for storing such wastes in tanks that includes specific information on: (1) how the waste is treated, rendered, or mixed before or immediately after the placement in the tank so that it is no longer considered ignitable and complies with 724.117(b); or the waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to react or ignite; or the tank is used solely for emergencies; (2) how facilities that treat or store ignitable or reactive waste in covered tanks comply with the National Fire Protection Association's buffer zone requirements for tanks.

G-1 General Information

The operator was not identified in the contingency plan. The facilities site plan was not included as part of the contingency plan.

I-1d(2)

The applicant failed to submit a contingent post closure care plan for each regulated tank that does not have adequate secondary containment meeting the requirements of 35 IAC 724.293.

I-1e Closure of Disposal Units: 703.183(m), 703.203(f), 703.204(h), 703.207(e), 724.328(a)(2), 724.328(c)(1)(A), 724.358(c), 724.410(a)

Closure plans for tank systems in which wastes or contaminated materials are to remain at closure must describe how the unit will be closed, including a description of the final cover to be established and its expected performance. Contingent closure plans for tank systems, surface impoundments and waste piles also must provide these descriptions.

I-1e(1)(a) Elimination of Liquids: 724.328(a)(2)(A)

The applicant failed to describe how free liquids are to be removed or solidified at closures.

I-1e(1)(b) Waste Stabilization: 724.328(a)(2)(B)

The applicant failed to describe the methods to be used to stabilize remaining wastes to support the final cover, including:

- Stabilization methods, equipment and materials;
- Required bearing strength of the stabilized waste;
- Demonstration of stabilized waste bearing strength; and
- Methods for bearing strength determination during closure.

I-1e(2) Cover Design: 724.328(a)(2)(C), 724.410(a)

The cover design and installation procedures were not thoroughly described. This submission should have included:

- Drawings showing cover layers, thicknesses, slopes and overall dimensions;
- The common name, species and variety of the proposed cover crop;
- Descriptions of synthetic liners to be used, including chemical properties, strength, thickness and manufacturer's specifications;
- Description of rationale for cover selection;
- Descriptions of and specifications for protective materials placed above and below synthetic liners;
- Clay liner characteristics, including thickness and hydraulic conductivity; and
- Clay liner construction plans, including lift sequencing.

I-1e(3) Minimization of Liquid Migration: 724.328(a)(2)(C)(i), 724.410(a)

If the cover design which is proposed is different than the EPA-recommended designs (refer to Permit Applicant's Guidance Manual), the applicant should provide engineering calculations showing that the proposed cover will provide long-term minimization of liquid migration through the cover.

I-1e(4) Maintenance Needs: 724.328(a)(2)(C)(ii), 724.410(a)

The applicant failed to demonstrate that the cover system will function effectively with minimum maintenance needs.

I-1e(5) Drainage and Erosion: 724.328(a)(2)(C)(iii), 724.410(a)

The applicant failed to provide the following information:

- Data demonstrating that the proposed final slopes will not cause significant cover erosion;
- Descriptions of drainage materials and their hydraulic conductivities;
- Engineering calculations demonstrating free drainage of precipitation off of and out of the cover; and
- Estimation of the potential for drainage-layer clogging.

I-1e(6) Settlement and Subsidence: 724.328(a)(2)(C)(iv), 724.410(a)

The applicant failed to describe potential cover settlement and subsidence, considering immediate settlement, primary consolidation, secondary consolidation, and creep and liquefaction including the following information:

- Potential foundation compression;
- Potential soil liner compression; and
- Potential waste consolidation and compression resulting from waste dewatering, biological oxidation and chemical conversion of solids to liquids.

The effects of potential subsidence/settlement on the ability of the final cover to minimize infiltration were not described.

I-1e(7) Cover Permeability: 724.328(a)(2)(C)(v), 724.410(a)

The applicant failed to demonstrate that the cover system will have a permeability less than or equal to that of the liner system.

I-1e(8) Freeze/Thaw Effects: 724.328(a)(2)(C), 724.410(a)

The applicant failed to identify the average depth of frost penetration and describe the potential effects of freeze/thaw cycles on the cover.

I-2 Post-Closure Plan: 703.183(m), 703.203(f), 703.204(h), 703.207(e), 724.218, 724.297(b) and (c), 724.328(b), 724.328(c)(1)(B), 724.380(c), 724.410(b)

A copy of the most recent post-closure plan and the contingent post-closure plan have not been submitted. The contingent post-closure plans failed to address Items I-2a, b and c.

I-2a Inspection Plan: 724.218(b), 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(1)(B), 724.380(c), 724.410(b)

The applicant failed to describe the inspections to be conducted during the post-closure care period, their frequency, the inspection procedure, and the logs to be kept. The following items, as applicable, should have been included in the inspection plan:

- Security control devices;
- Erosion damage;
- Cover settlement, subsidence and displacement;
- Vegetative cover condition;
- Integrity of run-on and run-off control measures;
- Cover drainage system functioning;
- Leak detection system;
- Leachate collection and removal system;
- Gas venting system;
- Well condition; and
- Benchmark integrity.

The rationale for determining the length of time between inspections should have been provided.

I-2b Post-Closure Monitoring Plan: 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(1)(B), 724.410(b)

The applicant failed to describe the monitoring to be conducted during the post-closure care period, including the procedures for conducting and evaluating the data gathered from:

- Groundwater monitoring;
- Leachate collection and removal; and
- Leak detection between liners.

I-2c Post-Closure Maintenance Plan: 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(1)(B), 724.410(b)

The applicant failed to describe the preventive and corrective maintenance procedures, equipment requirements and material needs including the following items in the maintenance plan, as applicable:

- Repair of security control devices;
- Erosion damage repair;
- Correction of settlement, subsidence and displacement;
- Mowing, fertilization and other vegetative cover maintenance;
- Repair of run-on and run-off control structures;
- Leachate removal system maintenance; and
- Well replacement.

The rationale to be used to determine the need for corrective maintenance activities has not been provided.

I-3 Notice in Deed and Certification: 703.183(n), 724.216, 724.217(c), 724.219

Existing facilities must submit a copy of the notice or notation recorded in the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that (1) the land has been used to manage hazardous wastes; (2) its use is restricted; and (3) the survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each area of the facility, has been filed with the County Recorder, to any local zoning authority or the authority with

jurisdiction over local land use and with the Agency. For hazardous wastes disposed prior to January 12, 1981, the applicant should have identified the type, location and quantity of the hazardous waste to the best of the owner or operator's knowledge and in accordance with any records the owner or operator has kept. A certification has not been submitted to the Agency, signed by the owner or operator, which indicates the notification in the deed has been properly recorded.

I-6 Post Closure Cost Estimate: 703.183(p), 724.244

A copy of the most recent post-closure cost estimate, calculated to cover the cost, in current dollars, of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure plan has not been provided. The cost must be updated annually using an inflation factor.

I-7e Financial Test and Corporate Guarantee for Post-Closure Care: 724.245(f), 40 CFR 264.151(f) and (h)

The applicant failed to submit a letter signed by the owner's or operator's chief financial officer and worded as specified by 40 CFR 264.151(f), a copy of the independent certified public accountant's report on examination of the applicant's financial statements for the latest fiscal year, and a special report from the certified public accountant. Parent company must guarantee post-closure care for a subsidiary facility, the corporate guarantee must accompany the preceding items.

K. PART B CERTIFICATION: 703.182

K-2 Engineering Certification: 703.182, Illinois Professional Engineering Act

Technical data, such as design drawings, specifications and engineering studies, should have been certified (sealed) by a Professional Engineer who is licensed to practice in the State of Illinois in accordance with Ill. Rev. Stat., par. 5101, Sec. 1 and par. 5119, Sec. 13.1.

TED:bjh/sp/2338n/3,16

USEPA

safety-kleen®

FEDERAL EXPRESS

May 1, 1990
RO 90-185

Mr. Lawrence W. Eastep, P.E.
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62794-9276

Subject: Mokena Service Center

Dear Mr. Eastep,

This has been prepared in response to your letter dated January 3, 1989. Please find enclosed responses to your comments, revised text and exhibits for the subject facility.

If you have any questions or require further information, please contact me on extension 2550.

Sincerely,

Rob Omiecinski

Rob Omiecinski
Environmental Permit Writer

RO/dfs

cc: P. Jefferson, Chicago Reg. Mgr.
Br. Mgr. (5-034-05)
G. Garneau



777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708/697-8460 FAX 708/697-4295

**COMMENT:**

A. Part Application: 702.123, 702.126(a) and (d), 703.181 the application is not complete for the following reasons:

1. In your response to our March 17, 1988 NOD, you stated that the requested map was included, but there was no topographic map designated for the Part A Section in the November 3, 1988 re-application. So I will assume you mean the one already in the application. As stated in the March 17, 1988 NOD, you failed to provide an adequate topographic map for this Section. The map is of poor quality and illegible. There was no latitude and longitude to the nearest whole second.

   It is impossible to distinguish between the different contours, surface configuration and structures. To meet the requirements of this Section you must provide a complete topographic map (not a reduction) with the accurate latitudes and longitudes to the nearest whole second. It must also have the map scale and meridian arrow showing north. Cutting and taping a map scale to a reduced copy of a section of a topographic map and drawing the meridian arrow is also inadequate. Section 702.123 requires a topographic map extending to at least one mile beyond the property boundaries of the facility which clearly shows the following:

   The legal boundaries of the facility; the location and serial number of each of your existing and proposed intake and discharge structure; all hazardous waste management facilities; each well where you inject fluids underground; and all springs and surface water bodies in the area plus all drinking water wells within 1/4 mile of the facility and identify what public record you received the information.

   If an intake or discharge structure, hazardous waste disposal site, both current and proposed, or injection well located more than 1 mile from the plant, include it in the map. If not, attach additional sheets describing the location of the structure, disposal site, or well, and identify the US Geological Survey (or other) map corresponding to the location. On all maps of the rivers, show the direction of the current, and in tidal waters, show the direction of ebb and flow tides. Use a 7 1/2 minute series map published by the US Geological Survey, which may be obtained through the US Geological Survey Office. If a 7 1/2 minute series map has not been published for your facility site, then you may use a 15 minute series.

**RESPONSE:**

The topographic map is enclosed.

**COMMENT:**

2. In your response to our March 17, 1988 NOD, you stated that the information had been added, but there was not site plan designated for

the Part A Section in the November 3, 1988 re-application. Therefore you have failed to provide the following information as required in the NOD:

a. Did not outline the property boundaries.

b. Did not show the location of the return and fill station or the underground hazardous waste tank.

c. Did not provide the approximate dimensions for the container storage area, return and fill station, underground tank and the boundary lines.

**RESPONSE:**

This information is included on the enclosed site plan.

**COMMENT:**

3. You failed to provide photographs of the underground tanks.

**RESPONSE:**

Photographs are included in the tank assessment report.

## B. FACILITY DESCRIPTION

**COMMENT:**

B-2 Topographic Map: 703.183(S), 703.185(C), 703.185(D), 724.195, 724,197

B-2a General Map Requirements: 703.183(S)

1. The 1" = 200 ft. topographic map does not have the date of publication or the meridian arrow showing north. The map is also of poor quality and illegible. It is impossible to distinguish between the different contours, surface configuration and structures.

**RESPONSE:**

A topographic map with the above information is enclosed.

**COMMENT:**

2. The 1" = 2000 ft. map is of poor quality and illegible also. It does not show the location of the site, northern arrow or map source. This was also required in the March 17, 1988 NOD.

**RESPONSE:**

Please see response to comment B-2.

**COMMENT:**

3. The reduced revised site plan and Plan D-12574 still does not show the location of the underground tank. The March 17, 1988 NOD requested a map that would show the location of all hazardous waste units on-site as well as the dates, scale and northern arrow.

**RESPONSE:**

This information is included on drawing D 12574.

**COMMENT:**

4. The topographic map or maps did not show the locations of all withdrawal wells that you declared around the site as requested in the March 17, 1988 NOD.

**RESPONSE:**

The locations of the withdrawal wells are indicated on the Geological and Water Surveys Well Records.

**COMMENT:**

5. The plat map is of poor quality and illegible. You failed to provide dates, northern arrow, scale and publisher as required in the March 17, 1988 NOD.

**RESPONSE:**

This information is included on the enclosed plat map.

**COMMENT:**

6. You failed to provide the dates, scale, northern arrow and publisher for the storm sewer, sanitary sewer and water lines as required in the March 17, 1988 NOD.

**RESPONSE:**

The above information is enclosed.

**COMMENT:**

B-3b Floodplain Standard: 703.184(c), 724.118(b)

In your November 3, 1988 response to our March 17, 1988 NOD letter, you stated that the facility was not located to the 100 year flood plain and that a flood plain map was provided. But no flood plain map was found in

the application received on November 7, 1988. Therefore, you have failed to provide the flood plain map as required in our March 17, 1988 NOD.

**RESPONSE:**

A floodplain map is enclosed.

**COMMENT:**

B-4 Traffic Information: 703.183(j)

You failed to provide the following traffic-related information as requested in the March 17, 1988 NOD:

You must describe the procedure used to control traffic while it is on-site. This must include where and how the trucks report in, how they are routed to their unloading/loading areas, where they must stop to be weighed in, where they go to have their load sampled, where they check out etc. Please prepare your response to the above in a chronological order from the point the truck arrives at the gate until it leaves the site.

**RESPONSE:**

This information is included in Section 1.2.1.

## C. WASTE CHARACTERISTICS

**COMMENT:**

C-3 Quality Assurance: 702.145

In your November 3, 1988 response to our March 17, 1988 NOD letter, your stated that the facility would submit a Quality Assurance plan at a later date. To date, you have failed to provide the quality assurance plan, in accordance with the standards established in the Third Edition of SW-846, for laboratory analysis of wastes and groundwater.

**RESPONSE:**

The Quality Assurance/Quality Control Manual is enclosed.

## D. PROCESS INFORMATION

**COMMENT:**

D-1a(1) Description of Containers: 724.271, 724.272

You failed to provide the following information about the containers used to treat or store hazardous waste as required in the March 17, 1988 NOD:

1. You failed to provide the construction material, dimensions and diagram for the 30 gallon drum.

2. You failed to provide the dimensions, diagram and DOT specification for the 16 gallon polyethylene drum.

3. You failed to provide the construction material, dimension, diagram, usable volume and and DOT specifications for the 5 gallon pail.

4. You failed to provide the usable volume and DOT specifications for the fiber boxes.

   Please provide a narrative about each kind of container used on-site and include the answers to the above questions in that narrative.

**RESPONSE:**

The above information has been added to Section 3.2.2. Drawings of the containers are included in Appendix E. Please note that Safety-Kleen no longer utilizes the dry cleaning fiber boxes.

**COMMENT:**

D-1a(2) Container Management Practices: 724.273

1. You failed to describe the container management practices used to handle your own processed waste and where on the site it will be stored. This information must be provided as required in the March 17, 1988 NOD.

**RESPONSE:**

This information has been added to Sections 1.2.2. and 3.3.2.

**COMMENT:**

2. You failed to indicate the aisle space maintained between a row of containers and a wall as required in the March 17, 1988 NOD.

**RESPONSE:**

This information has been added to Sections 1.2.2. and 3.3.2.

**COMMENT:**

3. You failed to provide the maximum stacking height of the boxes and whether or not they are stored on pallets as required in the March 17, 1988 NOD.

**RESPONSE:**

Boxes will no longer be utilized at this facility.

**COMMENT:**

D-1(a)(3)(a) Requirement for the Base of Liner to Container Liquids:

1. You failed to demonstrate that the base or liner over the base is impervious to your waste and any precipitation (this included precipitation mixed with waste).

**RESPONSE:**

This information has been added to Section 3.3.2.

**COMMENT:**

2. You failed to provide an engineering evaluation of the base's structural integrity for the storage area on-site as required in the March 17, 1988 NOD.

**RESPONSE:**

This information has been added to Section 3.3.2.

**COMMENT:**

3. You failed to discuss the compatibility of the base with each kind of waste stored on site as required in the March 17, 1988 NOD.

**RESPONSE:**

This information has been added to Section 3.3.2.

**COMMENT:**

4. You failed to provide the concrete sections and detail designs for the storage area building base as required in the March 17, 1988 NOD.

**RESPONSE:**

This information has been added to Section 3.3.2.

**COMMENT:**

D-1a(3)(c) Containment System Capacity: 703.201(a)(3), 724.275(b)(3)

You failed to provide calculations which demonstrate that the containment system for the container storage area will have sufficient capacity to contain at least 10 percent of the volume of the containers or the volume of the largest container as required in the March 17, 1988 NOD. Just stating that it is without providing the calculations is inadequate. This

demonstration must discuss the volume of the largest container, total volume of containers, containment structure capacity, and volume displaced by containers and other structures in the containment system.

**RESPONSE:**

This information is included in Sections 1.2.2. and 3.3.2.

**COMMENT:**

D-1b CONTAINERS WITHOUT FREE LIQUIDS

D-1b(1) Test for Free Liquids: 703.201(b)(1), 729.320

Submit the test results or other documentation or information to show that the wastes to be stored do not contain free liquids (e.g. EPA Method No. 9095).

**RESPONSE:**

All the wastes stored at this facility contain free liquids.

**COMMENT:**

D-1b(2) Description of Containers: 724.271, 724.272

Provide the following information about the containers used to treat or store hazardous waste: approximate number of each type of container, construction materials, dimensions and usable volumes, DOT specifications or other manufacturer specifications, liner specifications (if applicable), container condition (new, used, reconditioned), and markings and labels.

**RESPONSE:**

This information is included in Section 3.3.2.

**COMMENT:**

D-1b(3) Container Management Practices: 724.273

Describe container management practices used to ensure that hazardous waste containers are always kept closed during storage except when adding or removing waste, and are not opened, handled, or stored in a manner that may cause the container to rupture or to leak. Include a discussion of procedures for transporting containers across the facility. Indicate the aisle space maintained between rows of containers and provide the maximum number, volume and stacking height of containers for each are in which containers are stored. Provide a plan view of the container storage area(s) which show(s) the arrangement of the containers.

**RESPONSE:**

This information has been added to Section 1.2.2. and 3.3.2.

**COMMENT:**

D-1b(4) Container Storage Area Drainage: 703.201(b)(2), 724.275(c)

Describe how the storage area is designed or operated to drain and remove liquids unless containers are otherwise kept from contact with standing liquids.

**RESPONSE:**

This information has been added to Sections 1.2.2. and 3.3.2.

**COMMENT:**

D-2 Tank Systems

The following items must be provided for all tank systems. Note that a tank system includes the tank and its associated ancillary equipment and containment system.

D-2f(1)(b) Requirements for Secondary Containment and Leak Detection: 724.293(b)-(c), 703.202(g)

You failed to provide the information required in the March 17, 1988 NOD to demonstrate that the secondary containment system will be designed, installed and operated to prevent any migration of waste of accumulated liquid from the tank system to the soil, groundwater, or surface water at any time during its use when the system is upgraded in 1992. You must demonstrate that the secondary containment system can detect and collect releases and accumulated liquids. This demonstration must include the following:

A. Specify the materials of construction used to construct or line the system. Show that these materials are compatible with the wastes in the tank system.

**RESPONSE:**

This information is included in the enclosed tank assessment report.

**COMMENT:**

B. Demonstrate that the system has sufficient strength and thickness to prevent failure caused by any of the following:

- pressure gradients (including static head and external hydrological forces);

- physical contact with the wastes;
- climatic conditions; and
- stresses from daily operation (including stresses from nearby vehicular traffic).

**RESPONSE:**

Please see response to comment D-2f(1)(b)A.

**COMMENT:**

C. Present calculations to prove that the secondary containment system is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

**RESPONSE:**

Please see response to comment D-2f(1)(b)A.

**COMMENT:**

D. Provide a description of the leak detection system, including its operating principle, design features and operating procedures. Demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then specify the earliest practical time that detection can take place. Indicate why this longer period does not pose a threat to human health and the environment.

**RESPONSE:**

Please see response to comment D-2f(1)(b)A.

**COMMENT:**

E. Show how the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

**RESPONSE:**

Please see response to comment D-2f(1)(b)A.

**COMMENT:**

F. Document how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then specify the earliest practical time that removal can take place. Indicate why this longer period does not pose a threat to human health and the environment.

**RESPONSE:**

This information is included in Section 3.3.1. and also in the Contingency Plan.

**COMMENT:**

D-2f(1)(d) Secondary Containment and Leak Detection Requirements for Ancillary Equipment: 703.202(g), 724.293(f)

You failed to provide the information on the ancillary equipment that will be installed or upgraded in 1991 for your tank system as required in the March 17, 1988 NOD letter. You must demonstrate that the tank system's ancillary equipment will be provided with secondary containment such as jacketing, double-walled piping, or a trench. Describe the containment system, and demonstrate that it will be designed, installed and operated to prevent any migration of waste or accumulated liquid to the soil, groundwater or surface water at any time during its use. Also, demonstrate that the containment system can detect and collect releases and accumulated liquids. This demonstration must include at least the following:

A. Specify the materials of construction used to construct or line the system. Show that these materials are compatible with the wastes in the tank system.

B. Demonstrate that the system has sufficient strength and thickness to prevent failure caused by any of the following:

- pressure gradients (including static head and external hydrological forces)
- physical contact with the wastes
- climatic conditions
- stress of daily operation (including stresses from nearby vehicular traffic).

C. Present calculations to prove that the secondary containment is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

D. Provide a description of the leak detection system, including its operating principle, design features and operating procedures. Demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then specify the earliest practical time that detection can take place. Indicate why this longer period does not pose a threat to human health and the environment.

E. Show how the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

F. Document how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then specify the earliest practical time that removal can take place. Indicate why this longer period does not pose a threat to human health and the environment.

**RESPONSE:**

The ancillary equipment is also addressed in the underground tank integrity assessment. In addition, information concerning the return and fill station has been added to Sections 1.2.2. and 3.3.1.

**COMMENT:**

F-3 Waiver of Documentation of Preparedness and Prevention Requirements

F-3a(4) Water for Fire Control: 724.132(d)

You failed to demonstrate that the facility has water at adequate volume and pressure to supply water hose streams, foam producing equipment, etc. You must state what equipment you have now for fire control, what water pressure and volume is needed to activate and maintain its action and report what water pressure is present at your existing fire hydrants and their location around your facility. Just stating that water is available at your site is inadequate for this section.

**RESPONSE:**

This information has been requested of the Mokena Water Department and will be forwarded to your office upon receipt.

**COMMENT:**

F-4 Preventive Procedures, Structures and Equipment: 703.183(h)

F-4c Water Supplies: 703.183(h)(3)

You failed to include your response to comment for this part in Part B narrative. This information must be included in the Part B narrative for this section to be complete.

**RESPONSE:**

This information has been added to Section 4.3.

**COMMENT:**

F-5c Management of Ignitable or Reactive Wastes in Containers: 703.201(c), 724.276

You failed to declare the distances between the storage building and the boundaries of your facility as required in the March 17, 1988 NOD. You did not declare the distance on either your reduced copy of the site plan which show the traffic patterns or on site Plan D-12574. If we were to use these maps to show compliance of this Section, your storage area would not meet the 50 foot requirement.

**RESPONSE:**

This information has been added to the Site Plan.

**COMMENT:**

F-5e Management of Ignitable or Reactive Wastes in Tank System: 703.202(f), 724.298

You failed to declare the distance between the tank and the boundaries as required in the March 23, 1988 NOD. The site plans provided failed to show the locations of the tank. Just providing the NFPA buffer zone requirement is insufficient for this section.

**RESPONSE:**

This information is included on the Site Plan.

G. CONTINGENCY PLAN: 703.183(g), 724.150 through 724.156, 724.152(b)

**COMMENT:**

G-1 General Information

You failed to provide the facility name and location, operator, site plan, and description of facility operations in the narrative of the Contingency Plan as required in the March 23, 1988 NOD.

**RESPONSE:**

This information has been added to the Contingency Plan.

I. CLOSURE AND POST-CLOSURE REQUIREMENTS: 703.183(m), 724.210 through 724.220

**COMMENT:**

I-1d Inventory Removal, Disposal or Decontamination of Equipment, Structures and Soils: 724,212(b)(4), 724.214

You failed to provide a detail closure plan for your tank system as required in the March 23, 1988 NOD which includes a contingency for:

A. Closure of the unit as a landfill; and
B. Post-closure care and monitoring for the unit as a landfill.

This additional closure plan must include the following information:

I-1e Closure of Disposal Units: 703.183(m), 703.203(f), 703.204(h), 703.207(e), 724.328(a)(2), 724.328(c)(1)(A), 724.358(c), 724.410(a)

Closure plans for all piles, landfills, tank systems and surface impoundments in which wastes or contaminated materials are to remain at closure must describe how the unit will be closed, including a description of the final cover to be established and its expected performance. Contingent closure plans for tank systems, surface impoundments and waste piles also must provide these descriptions.

**RESPONSE:**

The detailed closure plan will be submitted by Mr. Gary Long, Safety-Kleen's remediation manager at the time of closure.

**COMMENT:**

I-1e(2) Cover Design: 724.328(a)(2)(C)

The cover design and installation procedures should be thoroughly described. This submission should include:

- Drawings showing cover layers, thickness, slopes and overall dimensions;
- The common name, species and variety of the proposed cover crop;
- Descriptions of synthetic liners to be used, including chemical properties, strength, thickness and manufacturer's specifications;
- Description of rationale for cover selection;
- Description of and specifications for protective materials placed above and below synthetic liners;
- Clay liner characteristics, including thickness and hydraulic conductivity; and
- Clay liner construction plans, including lift sequencing.

**RESPONSE:**

Please see response to comment I-1e.

**COMMENT:**

I-1e(3) Minimization of Liquid Migration: 724.328(a)(2)(C)(i), 724.410(a)

For cover designs different than EPA-recommended designs (refer to Permit Applicant's Guidance Manual), provide engineering calculations showing that the proposed cover will provide long-term minimization of liquid migration through the cover.

**RESPONSE:**

Please see response to comment I-1e.

**COMMENT:**

I-1e(4) Maintenance Needs: 724.328(a)(2)(C)(ii), 724.410(a)

Demonstrate that the cover system will function effectively with minimum maintenance needs.

**RESPONSE:**

Please see response to comment I-1e.

**COMMENT:**

I-1e(5) Drainage and Erosion: 724.328(a)(2)(C)(iii), 724.410(a)

Provide the following information:

- Date Demonstrating that the proud final slopes will not cause significant cover erosion;
- Description of drainage materials and their hydraulic conductivities;
- Engineering calculations demonstrating free drainage of precipitation off of and out of the cover; and
- Estimation of the potential for drainage-layer clogging.

**RESPONSE:**

Please see response to comment I-1e.

**COMMENT:**

I-1e(6) Settlement and Subsidence: 724.328(a)(2)(C)(iv), 724.410(a)

Describe potential cover settlement and subsidence, considering immediate settlement, primary consolidation, secondary consolidation, and creep and liquefaction. Include the following information:

- Potential foundation compression;
- Potential soil liner compression; and
- Potential waste consolidation and compression resulting from waste dewatering, biological oxidation and chemical conversion of solids to liquids.

Describe the effects of potential subsidence/settlement on the ability of the final cover to minimize infiltration.

**RESPONSE:**

Please see response to comment I-1e.

**COMMENT:**

I-1e(7) Cover Permeability: 724.328(a)(2)(C)(v), 724.410(a)

Demonstrate that the cover system will have a permeability less than or equal to that of the liner system.

**RESPONSE:**

Please see response to comment I-1e.

**COMMENT:**

I-1e(8) Freeze/Thaw Effects: 724.328(a)(2)(C), 724.410(a)

Identify the average depth of frost penetration and describe the potential effects of freeze/thaw cycles on the cover.

**RESPONSE:**

Please see response to comment I-1e.

**COMMENT:**

I-1f Schedule for Closure: 724.212(b)(6)

Provide a schedule for closure of each hazardous waste management unit and for final closure of the facility, including total time to close each hazardous waste management unit and the time required for intervening closure activities. This will allow tracking of the progress of closure.

**RESPONSE:**

A closure schedule is included in Appendix H.

**COMMENT:**

I-1g Extensions of Closure Time: 724.213

Submit a petition for a schedule for closure which exceeds the 90 days for treatment, removal or disposal of wastes and/or the 180 days for completion of closure activities which justifies that a longer period of closure time is required.

**RESPONSE:**

Safety-Kleen will close this facility according to the closure schedule.

**COMMENT:**

I-2 Post-Closure Plan: 703.183(m), 703.203(f), 703.204(h), 703.207(e), 724.218, 724.297(b) and (c), 724.328(b), 724.328(c)(1)(B), 724.380(c), 724.410(b)

Submit a copy of the most recent post-closure plan or, if applicable, the contingent post-closure plan. Landfill, surface impoundment and waste pile post-closure plans should address Items I-2a, b and c; land treatment unit post-closure plans should address Items I-2d.

**RESPONSE:**

The procedures described in the Closure Plan will address the residuals and contamination which may be present at the time of closure and thus eliminate the need for post-closure care.

**COMMENT:**

I-2a Inspection Plan: 724.218(b), 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(10(B), 724.380(c), 724.410(b)

Describe the inspections to be conducted during the post-closure care period, their frequency, the inspection procedure, and the logs to be kept. The following items, as applicable, should be included in the inspection plan:

- Security control devices;
- Erosion damage;
- Cover settlement, subsidence and displacement;
- Vegetative cover condition;

- Integrity of run-on and run-off control measures;

- Cover drainage system functioning; and

- Well condition.

The rationale for determining the length of time between inspections should be provided.

**RESPONSE:**

Please see response to Comment I-2.

**COMMENT:**

I-2b Post-Closure Monitoring Plan: 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.538(c)(1)(B), 724.410(b)

Describe the monitoring to be conducted during the post-closure care period, including, as applicable, the procedures for conducting and evaluating the data gathered from groundwater monitoring.

**RESPONSE:**

Please see response to comment I-2.

**COMMENT:**

I-2c Post-Closure Maintenance Plan: 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(1)(B), 724.410(b)

Describe the preventive and corrective maintenance procedures, equipment requirements and material needs. Include the following items in the maintenance plan, as applicable:

- Repair of security control devices;

- Erosion damage repair;

- Correction of settlement, subsidence and displacement;

- Mowing, fertilization and other vegetative cover maintenance;

- Repair of run-on and run-off control structures;

- Well replacement.

Describe the rationale to be used to determine the need for corrective maintenance activities.

**RESPONSE:**

Please see response to comment I-2.

**COMMENT:**

I-3 Notice in Deed and Certification: 703.183(n), 724.216, 724.217(c), 724.219

In your November 3, 1988 response to our March 17, 1988 NOD letter, you stated that the facility would submit a Notice in Deed at a later date. To date, you have failed to provide a copy of the notice or notation recorded in the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that (1) the land has been used to manage hazardous wastes; (2) its use is restricted; and (3) the survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility has been filed with the County Recorder, to any local zoning authority or the authority with jurisdiction over local land use and with the Agency. For hazardous wastes disposed prior to January 12, 1981, identify the type, location, and quantity of the hazardous waste to the best of the owner or operator's knowledge and in accordance with any records the owner or operator has kept. Submit a certification to the Agency, signed by the owner or operator, that the owner or operator has properly recorded this certification.

**RESPONSE:**

The Notice in Deed and Certification is in the process of being signed and will be forwarded to your office upon completion.

**COMMENT:**

I-5e Financial Test and Corporate Guarantee for Closure: 724.243(f) 724.251(f), 40 CFR 264.151(h)

The copy of your Letter of Credit which was submitted with your November 3, 1988 response is of poor quality and illegible, please submit a legible copy.

**RESPONSE:**

The above information is enclosed.

**COMMENT:**

K. PART CERTIFICATION: 703.182

K-1 Facility Certification: 702-126

Re-applications must be accompanied by a certification letter as specified in 702.126(d). The required signatures are as follows: (1) for a corporation, a principal executive officer (at least at the level of vice-president): (2) for a partnership or sole proprietorship, a general partner or the proprietor, respectively; (3) for a municipal, state,

Federal, or other public agency, either a principal executive officer or ranking elected official.

**RESPONSE:**

The Part B Certification Statement has been sent to executive office for his signature and will be forwarded to your office immediately upon receipt.

**COMMENT:**

K-2 Engineering Certification: 703-182, Illinois Professional Engineering Act

Any new technical data, such as design drawings, specifications and engineering studies, must be certified (sealed) by a Professional Engineer who is licensed to practice in the State of Illinois in accordance with Ill. Rev. Stat., par. 5101, Sec. 1 and par. 5119, Sec. 13.1.

**RESPONSE:**

If any new technical data is utilized at this facility, it will be certified as requested.

George Hamper

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6762

Refer to: 1970600001 -- Will
Safety Kleen -- Mokena
ILD000665851
RCRA Permit Log No. 95

January 3, 1989

Safety Kleen Corporation
Attn: Donald W. Burkenham, President
777 Big Timber Road
Elgin, Illinois 60120

Dear Mr. Burkenham:

The Illinois Environmental Protection Agency has reviewed Part B of the RCRA permit application for container (S01) and tank (S02) storage areas dated November 3, 1988 and received November 7, 1988 for the above-referenced facility. A list of the deficiencies identified during this second completeness review is included in the attached Notice of Deficiency (NOD).

Each of the deficiencies must be addressed before this Agency can begin the technical review of your permit application. Your response must be submitted in quadruplicate and postmarked no later than May 1, 1990. Your revised Part B application should be developed in accordance to the "RCRA Part B Permit Application Decision Guide" enclosed. Failure to use this format will compel the Agency to reject the application as incomplete. Each revised page or drawing must have the revision date identified on them for tracking purposes.

A certification identical to that outlined in 35 Ill. Adm. Code 702.126 must accompany your submission. The original and three copies of the new information and certification should be submitted to the following address:

Illinois Environmental Protection Agency
Division of Land Pollution Control -- #24
Permit Section
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

If you have any questions regarding this subject, feel free to contact Marla Laymon of my staff at 217/782-6762.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:ML/mls/sp4038j/1-2

Enclosure

cc: Division File, w/enclosure
Northern Region, w/enclosure
George Hamper, USEPA Region V, w/enclosure
Mary Murphy, USEPA Region V
Compliance Section W/NOD list

Illinois Environmental Protection Agency

RCRA PART B PERMIT APPLICATION DECISION GUIDE

Subject Requirement: 35 Illinois Administrative Code Section Nos.

A. Part A Application: 702.123, 702.126(a) and (d), 703.181 the application is not complete for the following reasons:

1. In your response to our March 17, 1988 NOD, you stated that the requested map was included, but there was no topographic map designated for the Part A Section in the November 3, 1988 re-application. So I will assume you mean the one already in the application. As stated in the March 17, 1988 NOD, you failed to provide an adequate topographic map for this Section. The map is of poor quality and illegible. There was no latitude and longitude to the nearest whole second.

   It is impossible to distinguish between the different contours, surface configuration and structures. To meet the requirements of this Section you must provide a complete topographic map (not a reduction) with the accurate latitudes and longitudes to the nearest whole second. It must also have the map scale and meridian arrow showing north. Cutting and taping a map scale to a reduced copy of a section of a topographic map and drawing the meridian arrow is also inadequate. Section 702.123 requires a topographic map extending to at least one mile beyond the property boundaries of the facility which clearly shows the following:

   The legal boundaries of the facility; the location and serial number of each of your existing and proposed intake and discharge structure; all hazardous waste management facilities; each well where you inject fluids underground; and all springs and surface water bodies in the area plus all drinking water wells within 1/4 mile of the facility and identify what public record you received the information.

   If an intake or discharge structure, hazardous waste disposal site, both current and proposed, or injection well located more than 1 mile from the plant, include it in the map. If not, attach additional sheets describing the location of the structure, disposal site, or well, and identify the US Geological Survey (or other) map corresponding to the location. On all maps of the rivers, show the direction of the current, and in tidal waters, show the direction of

ebb and flow tides. Use a 7 1/2 minute series map published by the US Geological Survey, which may be obtained through the US Geological Survey Office. If a 7 1/2 minute series map has not been published for your facility site, then you may use a 15 minute series.

2. In your response to our March 17, 1988 NOD, you stated that the information had been added, but there was no site plan designated for the Part A Section in the November 3, 1988 re-application. Therefore you have failed to provide the following information as required in the NOD:

   a. Did not outline the property boundaries.

   b. Did not show the location of the return and fill station or the underground hazardous waste tank.

   c. Did not provide the approximate dimensions for the container storage area, return and fill station, underground tank and the boundary lines.

3. You failed to provide photographs of the underground tanks.

B. FACILITY DESCRIPTION

B-2 Topographic Map: 703.183(S), 703.185(C), 703.185(D), 724.195, 724.197

B-2a General Map Requirements: 703.183(S)

1. The 1" = 200 ft. topographic map does not have the date of publication or the meridian arrow showing north. The map is also of poor quality and illegible. It is impossible to distinguish between the different contours, surface configuration and structures.

2. The 1" = 2000 ft. map is of poor quality and illegible also. It does not show the location of the site, northern arrow or map source. This was also required in the March 17, 1988 NOD.

3. The reduced revised site plan and Plan D-12574 still does not show the location of the underground tank. The March 17, 1988 NOD requested a map that would show the location of all hazardous waste units on-site as well as the dates, scale and northern arrow.

4. The topographic map or maps did not show the locations of all withdrawal wells that you declared around the site as requested in the March 17, 1988 NOD.

5. The plat map is of poor quality and illegible. You failed to provide dates, northern arrow, scale and publisher as required in the March 17, 1988 NOD.

6. You failed to provide the dates, scale, northern arrow and publisher for the storm sewer, sanitary sewer and water lines as required in the March 17, 1988 NOD.

B-3b Floodplain Standard: 703.184(c), 724.118(b)

In your November 3, 1988 response to our March 17, 1988 NOD letter, you stated that the facility was not located in the 100 yr. flood plain and that a flood plain map was provided. But no flood plain map was found in the application received on November 7, 1988. Therefore you have failed to provide the flood plain map as required in our March 17, 1988 NOD.

B-4 Traffic Information: 703.183(j)

You failed to provide the following traffic-related information as requested in the March 17, 1988 NOD:

You must describe the procedure used to control traffic while it is on-site. This must include where and how the trucks report in, how they are routed to their unloading/loading areas, where they must stop to be weighed in, where they go to have their load sampled, where they check out etc. Please prepare your response to the above in a chronological order from the point the truck arrives at the gate until it leaves the site.

C. WASTE CHARACTERISTICS

C-3 Quality Assurance: 702.145

In your November 3, 1988 response to our March 17, 1988 NOD letter, you stated that the facility would submit a Quality Assurance plan at a later date. To date, you have failed to provide the quality assurance plan, in accordance with the standards established in the Third Edition of SW-846, for laboratory analysis of wastes and groundwater.

D. PROCESS INFORMATION

D-1a(1) Description of Containers: 724.271, 724.272

You failed to provide the following information about the containers used to treat or store hazardous waste as required in the March 17, 1988 NOD:

1. You failed to provide the construction material, dimensions and diagram for the 30 gallon drum.

2. You failed to provide the dimensions, diagram and DOT specifications for the 16 gallon polyethylene drum.

3. You failed to provide the construction material, dimensions, diagram, usable volume and DOT specifications for the 5 gallon pail.

4. You failed to provide the usable volume and DOT specifications for the fiber boxes.

Please provide a narrative about each kind of container used on-site and include the answers to the above questions in that narrative.

D-1a(2) Container Management Practices: 724.273

1. You failed to describe the container management practices used to handle your own processed waste and where on the site it will be stored. This information must be provided as required in the March 17, 1988 NOD.

2. You failed to indicate the aisle space maintained between a row of containers and a wall as required in the March 17, 1988 NOD.

3. You failed to provide the maximum stacking height of the boxes and whether or not they are stored on pallets as required in the March 17, 1988 NOD.

D-1(a)(3)(a) Requirement for the Base of Liner to Contain Liquids:

1. You failed to demonstrate that the base or liner over the base is impervious to your waste and any precipitation (this included precipitation mixed with waste).

2. You failed to provide an engineering evaluation of the base's structural integrity for the storage area on-site as required in the March 17, 1988 NOD.

3. You failed to discuss the compatibility of the base with each kind of waste stored on site as required in the March 17, 1988 NOD.

4. You failed to provide the concrete sections and detail designs for the storage area building base as required in the March 17, 1988 NOD.

D-1a(3)(c) Containment System Capacity: 703.201(a)(3), 724.275(b)(3)

You failed to provide calculations which demonstrate that the containment system for the container storage area will have sufficient capacity to contain at least 10 percent of the volume of the containers or the volume of the largest container as required in the March 17, 1988 NOD. Just stating that it is without providing the calculations is inadequate. This demonstration must discuss the volume of the largest container, total volume of containers, containment structure capacity, and volume displaced by containers and other structures in the containment system.

D-1b CONTAINERS WITHOUT FREE LIQUIDS

D-1b(1) Test for Free Liquids: 703.201(b)(1), 729.320

Submit the test results or other documentation or information to show that the wastes to be stored do not contain free liquids (e.g. EPA Method No. 9095).

D-1b(2) Description of Containers: 724.271, 724.272

Provide the following information about the containers used to treat or store hazardous waste: approximate number of each type of container, construction materials, dimensions and usable volumes, DOT specifications or other manufacturer specifications, liner specifications (if applicable), container condition (new, used, reconditioned), and markings and labels.

D-1b(3) Container Management Practices: 724.273

Describe container management practices used to ensure that hazardous waste containers are always kept closed during storage except when adding or removing waste, and are not opened, handled, or stored in a manner that may cause the container to rupture or to leak. Include a discussion of procedures for transporting containers across the facility. Indicate the aisle space maintained between rows of containers and provide the maximum number, volume and stacking height of containers for each area in which containers are stored. Provide a plan view of the container storage area(s) which show(s) the arrangement of the containers.

D-1b(4) Container Storage Area Drainage: 703.201(b)(2), 724.275(c)

Describe how the storage area is designed or operated to drain and remove liquids unless containers are otherwise kept from contact with standing liquids.

D-2 Tank Systems

The following items must be provided for all tank systems. Note that a tank system includes the tank and its associated ancillary equipment and containment system.

D-2f(1)(b) Requirements for Secondary Containment and Leak Detection: 724.293(b)-(c), 703.202(g)

You failed to provide the information required in the March 17, 1988 NOD to demonstrate that the secondary containment system will be designed, installed and operated to prevent any migration of waste or accumulated liquid from the tank system to the soil, groundwater, or surface water at any time during its use when the system is upgraded in 1992. You must demonstrate that the secondary containment system can detect and collect releases and accumulated liquids. This demonstration must include the following:

A. Specify the materials of construction used to construct or line the system. Show that these materials are compatible with the wastes in the tank system.

B. Demonstrate that the system has sufficient strength and thickness to prevent failure caused by any of the following:

-- pressure gradients (including static head and external hydrological forces);

-- physical contact with the wastes;

-- climatic conditions; and

-- stresses from daily operation (including stresses from nearby vehicular traffic).

C. Present calculations to prove that the secondary containment system is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

D. Provide a description of the leak detection system, including its operating principle, design features and operating procedures. Demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then specify the earliest practical time that detection can take place. Indicate why this longer period does not pose a threat to human health and the environment.

E. Show how the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

F. Document how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then specify the earliest practical time that removal can take place. Indicate why this longer period does not pose a threat to human health and the environment.

D-2f(1)(d) Secondary Containment and Leak Detection Requirements for Ancillary Equipment: 703.202(g), 724.293(f)

You failed to provide the information on the ancillary equipment that will be installed or upgraded in 1991 for your tank system as required in the

March 17, 1988 NOD letter. You must demonstrate that the tank system's ancillary equipment will be provided with secondary containment such as jacketing, double-walled piping, or a trench. Describe the containment system, and demonstrate that it will be designed, installed and operated to prevent any migration of waste or accumulated liquid to the soil, groundwater or surface water at any time during its use. Also, demonstrate that the containment system can detect and collect releases and accumulated liquids. This demonstration must include at least the following:

A. Specify the materials of construction used to construct or line the system. Show that these materials are compatible with the wastes in the tank system.

B. Demonstrate that the system has sufficient strength and thickness to prevent failure caused by any of the following:

-- pressure gradients (including static head and external hydrological forces)

-- physical contact with the wastes

-- climatic conditions

-- stress of daily operation (including stresses from nearby vehicular traffic).

C. Present calculations to prove that the secondary containment is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

D. Provide a description of the leak detection system, including its operating principle, design features and operating procedures. Demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then specify the earliest practical time that detection can take place. Indicate why this longer period does not pose a threat to human health and the environment.

E. Show how the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

F. Document how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then specify the earliest practical time that removal can take place. Indicate why this longer period does not pose a threat to human health and the environment.

F-3 Waiver or Documentation of Preparedness and Prevention Requirements

F-3a(4) Water for Fire Control 724.132(d)

You failed to demonstrate that the facility has water at adequate volume and pressure to supply water hose streams, foam producing equipment, etc. You must state what equipment you have now for fire control, what water pressure and volume is needed to activate and maintain its action and report what water pressure is present at your existing fire hydrants and their location around your facility. Just stating that water is available at your site is inadequate for this section.

F-4 Preventive Procedures, Structures and Equipment: 703.183(h)

F-4c Water Supplies: 703.183(h)(3)

You failed to include your response to comment for this part in the Part B narrative. This information must be included in the Part B narrative for this section to be complete.

F-5c Management of Ignitable or Reactive Wastes in Containers: 703.201(c), 724.276

You failed to declare the distances between the storage building and the boundaries of your facility as required in the March 17, 1988 NOD. You did not declare the distance on either your reduced copy of the site plan which show the traffic patterns or on site Plan D-12574. If we were to use these maps to show compliance of this Section, your storage area would not meet the 50 foot requirement.

F-5e Management of Ignitable or Reactive Wastes in Tank Systems: 703.202(f), 724.298

You failed to declare the distance between the tank and the boundaries as required in the March 23, 1988 NOD. The site plans provided failed to show the locations of the tank. Just providing the NFPA buffer zone requirement is insufficient for this section.

G. CONTINGENCY PLAN: 703.183(g), 724.150 through 724.156, 724.152(b)

G-1 General Information

You failed to provide the facility name and location, operator, site plan, and description of facility operations in the narrative of the Contingency Plan as required in the March 23, 1988 NOD.

I. CLOSURE AND POST-CLOSURE REQUIREMENTS: 703.183(m), 724.210 through 724.220

I-1d Inventory Removal, Disposal or Decontamination of Equipment, Structures and Soils: 724.212(b)(4), 724.214

You failed to provide a detail closure plan for your tank system as required in the March 23, 1988 NOD which includes a contingency for:

A. Closure of the unit as a landfill; and
B. Post-closure care and monitoring for the unit as a landfill.

This additional closure plan must include the following information:

I-1e Closure of Disposal Units: 703.183(m), 703.203(f), 703.204(h), 703.207(e), 724.328(a)(2), 724.328(c)(1)(A), 724.358(c), 724.410(a)

Closure plans for all piles, landfills, tank systems and surface impoundments in which wastes or contaminated materials are to remain at closure must describe how the unit will be closed, including a description of the final cover to be established and its expected performance. Contingent closure plans for tank systems, surface impoundments and waste piles also must provide these descriptions.

I-1e(2) Cover Design: 724.328(a)(2)(C), 724.410(a)

The cover design and installation procedures should be thoroughly described. This submission should include:

- Drawings showing cover layers, thicknesses, slopes and overall dimensions;
- The common name, species and variety of the proposed cover crop;
- Descriptions of synthetic liners to be used, including chemical properties, strength, thickness and manufacturer's specifications;
- Description of rationale for cover selection;
- Descriptions of and specifications for protective materials placed above and below synthetic liners;
- Clay liner characteristics, including thickness and hydraulic conductivity; and
- Clay liner construction plans, including lift sequencing.

I-1e(3) Minimization of Liquid Migration: 724.328(a)(2)(C)(i), 724.410(a)

For cover designs different than EPA-recommended designs (refer to Permit Applicant's Guidance Manual), provide engineering calculations showing that the proposed cover will provide long-term minimization of liquid migration through the cover.

I-1e(4) Maintenance Needs: 724.328(a)(2)(C)(ii), 724.410(a)

Demonstrate that the cover system will function effectively with minimum maintenance needs.

I-1e(5) Drainage and Erosion: 724.328(a)(2)(C)(iii), 724.410(a)

Provide the following information:

- Data demonstrating that the proposed final slopes will not cause significant cover erosion;
- Descriptions of drainage materials and their hydraulic conductivities;
- Engineering calculations demonstrating free drainage of precipitation off of and out of the cover; and
- Estimation of the potential for drainage-layer clogging.

I-1e(6) Settlement and Subsidence: 724.328(a)(2)(C)(iv), 724.410(a)

Describe potential cover settlement and subsidence, considering immediate settlement, primary consolidation, secondary consolidation, and creep and liquefaction. Include the following information:

- Potential foundation compression;
- Potential soil liner compression; and
- Potential waste consolidation and compression resulting from waste dewatering, biological oxidation and chemical conversion of solids to liquids.

Describe the effects of potential subsidence/settlement on the ability of the final cover to minimize infiltration.

I-1e(7) Cover Permeability: 724.328(a)(2)(C)(v), 724.410(a)

Demonstrate that the cover system will have a permeability less than or equal to that of the liner system.

I-1e(8) Freeze/Thaw Effects: 724.328(a)(2)(C), 724.410(a)

Identify the average depth of frost penetration and describe the potential effects of freeze/thaw cycles on the cover.

I-1f Schedule for Closure: 724.212(b)(6)

Provide a schedule for closure of each hazardous waste management unit and for final closure of the facility, including total time to close each hazardous waste management unit and the time required for intervening closure activities. This will allow tracking of the progress of closure.

I-1g Extensions of Closure Time: 724.213

Submit a petition for a schedule for closure which exceeds the 90 days for treatment, removal or disposal of wastes and/or the 180 days for completion of closure activities which justifies that a longer period of closure time is required.

I-2 Post-Closure Plan: 703.183(m), 703.203(f), 703.204(h), 703.207(e), 724.218, 724.297(b) and (c), 724.328(b), 724.328(c)(1)(B), 724.380(c), 724.410(b)

Submit a copy of the most recent post-closure plan or, if applicable, the contingent post-closure plan. Landfill, surface impoundment and waste pile post-closure plans should address Items I-2a, b and c; land treatment unit post-closure plans should address Item I-2d.

I-2a Inspection Plan: 724.218(b), 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(1)(B), 724.380(c), 724.410(b)

Describe the inspections to be conducted during the post-closure care period, their frequency, the inspection procedure, and the logs to be kept. The following items, as applicable, should be included in the inspection plan:

- Security control devices;
- Erosion damage;
- Cover settlement, subsidence and displacement;
- Vegetative cover condition;
- Integrity of run-on and run-off control measures;
- Cover drainage system functioning; and
- Well condition.

The rationale for determining the length of time between inspections should be provided.

I-2b Post-Closure Monitoring Plan: 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(1)(B), 724.410(b)

Describe the monitoring to be conducted during the post-closure care period, including, as applicable, the procedures for conducting and evaluating the data gathered from groundwater monitoring.

I-2c Post-Closure Maintenance Plan: 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(1)(B), 724.410(b)

Describe the preventive and corrective maintenance procedures, equipment requirements and material needs. Include the following items in the maintenance plan, as applicable:

- Repair of security control devices;
- Erosion damage repair;
- Correction of settlement, subsidence and displacement;
- Mowing, fertilization and other vegetative cover maintenance;
- Repair of run-on and run-off control structures;
- Well replacement.

Describe the rationale to be used to determine the need for corrective maintenance activities.

I-3 Notice in Deed and Certification: 703.183(n), 724.216, 724.217(c), 724.219

In your November 3, 1988 response to our March 17, 1988 NOD letter, you stated that the facility would submit a Notice in Deed at a later date. To date, you have failed to provide a copy of the notice or notation recorded in the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that (1) the land has been used to manage hazardous wastes; (2) its use is restricted; and (3) the survey plat and record of the type, location, and quantity of hazarouds wastes disposed of within each cell or area of the facility has been filed with the County Recorder, to any local zoning authority or the authority with jurisdiction over local land use and with the Agency. For hazardous wastes disposed prior to January 12, 1981, identify the type, location and quantity of the hazardous waste to the best of the owner or operator's knowledge and in accordance with any records the owner or operator has kept. Submit a certification to the Agency, signed by the owner or operator, that the owner or operator has properly recorded this certification.

I-5e Financial Test and Corporate Guarantee for Closure: 724.243(f), 724.251(f), 40 CFR 264.151(h)

The copy of your Letter of Credit which was submitted with your November 3, 1988 response is of poor quality and illegible, Please submit a legible copy.

K. PART B CERTIFICATION: 703.182

K-1 Facility Certification: 702.126

Re-applications must be accompanied by a certification letter as specified in 702.126(d). The required signatures are as follows: (1) for a corporation, a principal executive officer (at least at the level of vice-president); (2) for a partnership or sole proprietorship, a general partner or the proprietor, respectively; (3) for a municipal, state, Federal, or other public agency, either a principal executive officer or ranking elected official.

K-2 Engineering Certification: 703.182, Illinois Professional Engineering Act

Any new technical data, such as design drawings, specifications and engineering studies, must be certified (sealed) by a Professional Engineer who is licensed to practice in the State of Illinois in accordance with Ill. Rev. Stat., par. 5101, Sec. 1 and par. 5119, Sec. 13.1.

ML:mls/sp4038j/3-17

Log 95 Part B USEPA

safety-kleen®

Certified Mail - Return Receipt Requested

November 3, 1988
PMB 88-232

Mr. Lawrence W. Eastep, P.E.
Manager, Permit Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

Subject: Mokena Service Center
ILD 000665851
Notice of Deficiency

Dear Mr. Eastep,

This has been prepared in response to your March 17, 1988 Notice of Deficiency for the subject Part B permit application. Enclosed please find responses to your comments, a revised text and attachments for the permit application.

If you have any questions, please call me on extension 2550.

Sincerely,

Paula M. Brach

Paula M. Brach
Environmental Permit Writer

PMB/dfs

cc: P. Jefferson, Chicago Reg. Mgr.
G. Zambo







777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 312/697-8460 TELEX 910 251 4479

**SAFETY-KLEEN CORPORATION**

**MOKENA, ILLINOIS**

**RESPONSES TO COMMENTS DATED MARCH 17, 1988**

A. **PART A APPLICATION:** 702.123, 702.126(a) and (d), 703.181

The application has failed to provide the following information as required of the sections above:

**Comment:**

1. A topographic map was not provided as required in Section 702.123.

Section 702.123 requires a topographic map or maps of the area extending to at least one mile beyond the property boundaries of the facility which clearly shows the following:

The legal boundaries of the facility; the location and serial number of each of your existing and proposed intake and discharge structure; all hazardous waste management facilities; each well where you inject fluids underground; and all springs and surface water bodies in the area, plus all drinking water wells within 1/4 mile of the facility which are identified in the public records or otherwise known to you.

If an intake or discharge structure, hazardous waste disposal site, or injection well associated with the facility is located more than 1 mile from the plant, include it in the map if possible. If not, attach additional sheets describing the location of the structure, disposal site, or well, and identify the US Geological Survey (or other) map corresponding to the location.

On each map, include the map scale, a meridan arrow showing north, and latitude and longitude at the nearest whole second. On all maps of the rivers, show the direction of the current, and in tidal waters, show the direction of ebb and flow tides. Use a 7-1/2 minute series map published by the US Geological Survey, which may be obtained through the US Geological Survey Office. If a 7-1/2 minute series map has not been published for your facility site, then you may use a 15 minute series. If neither a 7-1/2 nor a 15 minute series map has been published for your site, use a plat map or other appropriate map, including all requested information; in this case, briefly described land use in the map area (e.g., residential, commercial).

**Response:**

The requested map has been included in the Part A application. Please note that there are no intake and discharge structures, injection wells, or disposal sites associated with the service center.

**Comment:**

2. Your facility site plan did not provide the following information as required in Section 703.181;

   a. Did not outline the property boundaries.

   b. Did not name each storage or disposal area/unit (example: drum storage area 1, tanks 1-20, etc.).

   c. Did not label all past storage, treatment or disposal operations.

   d. Did not label all future storage, treatment or disposal operations.

   e. Did not provide approximate dimension for storage, treatment or disposal operations, including all past, present and future areas.

**Response:**

   a. The facility boundaries have been indicated on the site plan.

   b. The locations of the tank and the drum storage area have been indicated on the site plan. As there is only one hazardous waste storage tank and one container storage area, they have not been numbered.

   c. The past storage areas are identical to the present ones. There are no treatment or disposal units at this facility.

   d. The storage areas are those indicated on the floor plan. These units have been indicated on the site plan (see (b) above).

   e. The dimensions of the drum storage area have been added to the site plan.

**Comment:**

3. You did not provide photographs of existing and future units and structures as required in Section 703.181.

   All existing facilities must include photographs that clearly delineate all existing structures; all existing areas of storage, treatment, or disposal of hazardous waste; and all known sites of future storage, treatment or disposal operation. Photograph may be color or black and white, groundlevel or aerial. Indicate the date the photograph was taken on the back of each picture.

**Response:**

   The requested photographs have been provided.

## B. FACILITY DESCRIPTION

**Comment:**

B-2a General Map Requirements: 703.183(s)

The map must show the facility and a distance of 1,000 feet around it, at a scale of 1 inch equal to not more than 200 feet. The map must include: contours sufficient to show surface water flow around facility unit operations, 100-year floodplain area, surface waters surrounding land uses, map orientation, and legal boundaries of facility site. The map should also indicate the injection and withdrawal wells, buildings, structures, sewers, loading and unloading areas, fire control facilities, floor control or drainage barriers, run-off control systems, and (proposed) new existing hazardous waste operation units and solid waste management units. Multiple maps may be submitted to meet the above requirements, if necessary, but should be at a scale of 1 inch equal to not more than 200 feet. The maps provided were of poor quality and illegible. Many of the maps did not have dates, map orientation, scales, and what organization published the map.

**Response:**

The 1"-200' map has been enclosed in Appendix C.

The maps in Appendix C were copied from blue line prints and the copies submitted are the best available ones. The sources of the maps, the scale and the map orientations have been addressed.

**Comment:**

B-3b Floodplain Standard: 703.184(c), 724.118(b)

Document whether or not the facility is located within a 100-year floodplain, and include the source of data (Federal Insurance Administration Map or equivalent maps and calculations).

**Response:**

The facility is not in the 100-year floodplain. This information has been added to Section 1.2.1 and a floodplain map has been added to Appendix C.

**Comment:**

B-3b(1) Demonstration of Compliance: 703.184(d), 724.118(b)

For facilities located within the 100-year floodplain, describe how the facility is designed, constructed, operated, and maintained to prevent washout of any hazardous waste during a flood.

**Response:**

Please see the response to Comment B-3b above.

**Comment:**

B-3b(1)(a) Flood Proofing and Flood Protection Measures: 703.184(d)(1) and (d)(2)

Provide a structural or other engineering study showing how the design of the hazardous waste units and the flood proofing and protection devices at the facility will prevent washout.

**Response:**

Please see the response to Comment B-3b above. In addition, the container storage area is located indoors and, therefore, run-on will not occur. This information has been added to Section 1.2.1.

**Comment:**

B-3b Flood Plan: 703.184(d)(3), 724.118(b)(1)(A)

Describe the procedures to be followed to remove hazardous waste to a safe location before the facility is flooded, including timing related to flood levels, estimated time to move the waste, the location to which the waste will be moved, demonstration that those facilities will be eligible to receive hazardous waste, the planned procedures, equipment, and personnel to be used, and the potential for accidental discharge of the waste during movement.

**Response:**

Please see the response to Comment B-3b.

**Comment:**

B-4 Traffic Information: 703.183(j)

Provide the following traffic-related information:

- Traffic patterns on site;
- Estimated volumes, including number and types of vehicles;
- Traffic control signs, signals and procedures.

**Response:**

This information has been added to Section 1.2.1 and to the site plan.

**C. WASTE CHARACTERISTICS**

**Comment:**

C-3 Quality Assurance: 702.145

Provide a quality assurance plan, in accordance with the standards

established in the Third Edition of SW-846, for laboratory analysis of wastes and groundwater.

**Response:**

A Quality Assurance/Quality Control Plan is presently being developed by Safety-Kleen and will be forwarded to your office upon completion. You should note that, as no waste analyses are performed at the service center, the QA/QC Plan will be for the recycle center to which the wastes are sent.

**D. PROCESS INFORMATION**

**Comment:**

D-1a Description of Container: 724.271, 724.272

Provide the following information about the containers used to treat or store hazardous waste: approximate number of each type of container, usable volumes, DOT specifications or other manufacturer specifications, liner specifications (if applicable), container condition (new, used, reconditioned), and markings and labels.

**Response:**

All manufacturer specifications for the drums are contained on the drawings in Appendix E. DOT regulations do not apply to containers holding mineral spirits unless the container volume exceeds 110 gallons (40 CFR 173.118a). All containers used at the service center, with the exception of those used for paint waste, are exempt from DOT requirements unless transported by aircraft or boat (40 CFR 172.101 and 173.605). Labels are not required on any of the drums except the paint waste (flammable) and immersion cleaner (corrosive). Section 1.2.2 has been revised to include the drum marking requirements of 40 CFR 262.32.

**Comment:**

D-1a(2) Container Management Practices: 724.273

Describe container management practices used to ensure that hazardous waste containers are not opened, handled, or stored in a manner that may cause them to rupture or leak. Include a discussion of procedures for transporting containers within the facility. Indicate the aisle space maintained between rows of containers and provide the maximum number, volume and stacking height of each kind of container for each area in which containers are stored.

**Response:**

The requested information is contained in Sections 1.2.1, 2.2, 2.2.1, 2.2.2 and 3.4 of the permit application. In addition, a layout for the pallets is shown on the Floor Plan in Appendix C.

**Comment:**

D-1a(3)(a) Requirement for the Base or Liner to Contain Liquids: 724.275(a)(1)

Demonstrate the capability of the base to contain liquids, including:

- A statement that the base is free of cracks or gaps;
- Demonstration of imperviousness of base to wastes and precipitation;
- Base design and materials of construction;
- An engineering evaluation of the base's structural integrity; and
- Discussion of compatibility of the base with wastes.

**Response:**

The requested information is contained in Section 3.3.2. You should note that the container storage area is indoors, and precipitation will not enter it.

**Comment:**

D-1a (3)(b) Containment System Drainage: 703.201(a)(2), 724.275(b)(2)

The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation.

**Response:**

All wastes are palletized as indicated in Section 1.2.2. This method of operation will allow spilled or leaked waste to be detected immediately and removed by the methods described in Section 4.3 of the permit application.

**Comment:**

D-1a(3)(c) Containment System Capacity: 703.201(a)(3), 724.275(b)(3)

Provide calculations which demonstrate that the containment system for the return and fill station will have sufficient capacity to contain at least 10 percent of the volume of the containers or the volume of the largest container, whichever is greater. This demonstration must discuss the volume of the largest container, total volume of containers, containment structure capacity, and volume displaced by containers and other structures in the containment system.

**Response:**

The requested information has been added to Section 1.2.2.

**Comment:**

D-1a(3)(d) Control of Run-on: 703.201(a)(4), 724.275(b)(4)

Run-on into the containment system for the return and fill station must be prevented unless the collection system has sufficient excess capacity in addition to that required in the above paragraph to contain any run-on that might enter the system. Describe the dikes, berms, drainage system, etc., used to prevent run-on, or provide calculations demonstrating that the containment system has sufficient excess capacity to contain run-on. A 24-hour, 25-year storm event can be used as the basis for the calculations.

**Response:**

The requested information has been added to Section 1.2.2.

**Comment:**

D-2 Tank Systems

The following items must be provided for all tank systems. Note that a tank system includes the tank and its associated ancillary equipment and containment system. You declared that your tank is an underground tank, but all information you provided was for above ground tanks.

**Response:**

The following drawings should be removed from Appendix E: D10576 and D11124. All other drawings are applicable to the Mokena Service Center. In addition, Underground Tank Installation Details (D11487), has been added to Appendix E.

D-2a Existing Tank Systems

D-2a(1) Assessment of Existing Tank System's Integrity: 703.202(a), 724.292

Provide a written assessment that is reviewed and certified by an independent, qualified, registered professional engineer, on the structural integrity and suitability of each tank system for handling hazardous waste. At a minimum, this assessment must consider the following: (1) design standard(s), if available according to which the tank and ancillary equipment were constructed; (2) hazardous characteristics of the wastes that have been and will be handled; (3) documented age of the tank system, if available (otherwise, an estimate of the age); and (4) results of a leak test, internal inspection, or other tank integrity examination.

**Response:**

A tank assessment will be performed by a professional engineer registered in Illinois in the summer of 1988. The assessment will be forwarded to your office upon completion.

**Comment:**

D-2a(2) External Corrosion Protection: 703.202(e), 724.292(b)(3)

Describe corrosion protection measures used to ensure continued structural integrity and suitability of each tank system for handling hazardous waste.

**Response:**

This will be included in the independent engineer's assessment.

**Comment:**

D-2f Containment and Detection of Releases: 724.293

Secondary containment meeting the requirements of 35 IAC 724.293(b) -(f) (see Items D-2f(1)(b) through D-2f(1)(d) below) must be provided for:

1. All new tank systems or components, prior to their being put into service;

2. All existing tank systems used to store or treat Hazardous Waste Numbers F020, F021, F022, F023, F026 or F027, as defined in 35 IAC 721.131, by January 12, 1989;

3. Those existing tank systems of known and documented age, prior to January 12, 1989, or when the tank system has reached fifteen (15) years of age, whichever comes later;

4. Those existing tank systems for which the age cannot be documented, prior to January 12, 1995; but if the age of the facility is greater than seven (7) years, secondary containment must be provided by the time the facility reaches fifteen (15) years of age, or prior to January 12, 1989, whichever comes later; and

5. Tank systems that store or treat materials that become hazardous wastes subsequent to January 12, 1987, within the following time frames (from the date that the material becomes a hazardous waste):

   a. Prior to new tanks being placed into service;

   b. Within two (2) years if Case 2 (above) applies;

   c. Within two (2) years or when the tank system has reached fifteen (15) years of age, whichever comes later, if Case 3 (above) applies; or

   d. Within eight (8) years or, if the age of the facility is greater than seven (7) years, by the time the facility reaches fifteen (15) years of age, whichever is later, if Case 4 (above) applies.

Exemptions to this requirement are provided in 35 IAC 724.293(f) (see Item D-2f(1)(d) below) and 35 IAC 724.293(g) (see Item D-2f(3) below). If an existing tank system does not have a secondary containment system meeting the requirements of 35 IAC 724.293(b) - (f) and has not been granted alternative design or operation under 35 IAC 724.293(g), the closure plan for that tank system must include a contingency for:

1. Closure of the unit as a landfill; and

2. Post-closure care and monitoring for the unit as a landfill (see Item I-1d(2)).

The closure cost estimates prepared for this unit in accordance with 35 IAC 724.242 must reflect the costs of this contingent closure/post-closure plan if the cost of these activities is greater than the cost of decontaminating the tank system and the surrounding area. These estimates must then be used to establish the amount of financial assurance which is provided to meet the requirements of 35 IAC 724.243.

**Response:**

The tank at the Mokena service center is less than eleven years old. Safety-Kleen will install a tank system which meets with all the requirements of IAC 724.293 by the time the tank is 15 years old.

**Comment:**

D-2f(1) Plans and Description of the Design, Construction, and Operation of the Secondary Containment System for Each Tank System: 724.293(b)-(f), 703.202(g)

D-2F(1)(a) Tank Age Determination: 724.293(a), 703.202(g)

Specify the age of all existing tank systems so that the Agency can determine when requirements for secondary containment and leak detection will take effect. If the age of a tank system cannot be determined, indicate the reason.

**Response:**

The tank system at the Mokena service center is eleven years old. This has been indicated in Section 3.3.1.

**Comment:**

D-2f(1)(b) Requirements for Secondary Containment and Leak Detection: 724.293(b) - (c), 703.202(g)

Demonstrate that the secondary containment system has been (will be) designed, installed and operated to prevent any migration of waste or accumulated liquid from the tank system to the soil, groundwater, or surface water at any time during its use. Also, demonstrate that the

secondary containment system can detect and collect releases and accumulated liquids. This demonstration must include at least the following:

Specify the materials of construction used to construct or line the system. Show that these materials are compatible with the wastes in the tank system.

Demonstrate that the system has sufficient strength and thickness to prevent failure caused by any of the following:

- pressure gradients (including static head and external hydrological forces);
- physical contact with the wastes;
- climatic conditions; and
- stresses from daily operation (including stresses from nearby vehicular traffic).

Present calculations to prove that the secondary containment system is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

Provide a description of the leak detection system, including its operating principle, design features and operating procedures. Demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then specify the earliest practical time that detection can take place. Indicate why this longer period does not pose a threat to human health and the environment.

Show how the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

Document how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then specify the earliest practical time that removal can take place. Indicate why this longer period does not pose a threat to human health and the environment.

**Response:**

Safety-Kleen plans to relocate the Mokena service center to its property in Dolton, Illinois, within the next four years. However, a copy of the

standard drawings for underground tank systems is enclosed. These drawings will be used should it be necessary to remain at the Mokena location.

Comment:

D-2f(1)(d) Secondary Containment and Leak Detection Requirements for Ancillary Equipment: 703.202(g), 724.293(f)

Ancillary equipment is defined as any device including, but not limited to, such devices as piping, fittings, flanges, valves and pumps, that are used to distribute, meter or control the flow of waste:

a. from its point of generation to storage or treatment tanks;

b. between waste storage and treatment tanks to a point of disposal on-site; or

c. between waste storage and treatment tanks to a point of shipment for disposal off-site

The ancillary equipment associated with each tank system must be provided with a secondary containment system as described in the following paragraphs, except for:

1. Aboveground piping (exclusive of flanges, joints, valves and other connections) that are visually inspected for leaks on a daily basis;

2. Welded flanges, welded joints and welded connections, that are visually inspected for leaks on a daily basis;

3. Sealless or magnetic coupling pumps, that are visually inspected for leaks on a daily basis;

4. Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

Demonstrate that each tank system's ancillary equipment is provided with secondary containment such as jacketing, double-walled piping, or a trench. Describe the containment system, and demonstrate that it has been (will be) designed, installed and operated to prevent any migration of waste or accumulated liquid to the soil, groundwater or surface water at any time during its use. Also, demonstrate that the containment system can detect and collect releases and accumulated liquids. This demonstration must include at least the following:

- Specify the materials of construction used to construct or line the system. Show that these materials are compatible with the wastes in the tank system.

- Demonstrate that the system has sufficient strength and thickness to prevent failure caused by any of the following:

  - pressure gradients (including static head and external hydrological forces)

  - physical contact with wastes

  - climatic conditions

  - stress of daily operation (including stresses from nearby vehicular traffic).

- Present calculations to prove that the secondary containment is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

- Provide a description of the leak detection system, including its operating principle, design features and operating procedures. Demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then specify the earliest practical time that detection can take place. Indicate why this longer period does not pose a threat to human health and the environment.

**Response:**

Please see the response to Comment D-2f. The above items will be included with the professional engineer's assessment.

**Comment:**

D-2f(2) Requirements for Tank Systems Until Secondary Containment is Implemented: 724.293(i)

For non-enterable underground tanks, present the results of a leak test (or other tank integrity test approved by the Agency). Indicate the procedures that will be repeated annually until secondary containment is provided. For other than non-enterable underground tanks, provide the results of a leak test or present a schedule and procedures for assessing the overall condition of the tank system by an independent, qualified, registered professional engineer until secondary containment is provided. For ancillary equipment, present the results of a leak test or other integrity assessment measures approved by the Agency. Indicate the procedures that will be used to ensure that such tests will be repeated annually until secondary containment is provided.

**Response:**

The leak test for the tanks at the Mokena service center will be performed by July, 1988. The test will be performed annually until operations cease or secondary containment that meets the requirements of IAE Section 724.293 is installed. The frequency of the testing has been added to Section 3.3.1.

**F-2 INSPECTION SCHEDULE:** 703.183(e), 724.115

**Comment:**

F-2b(2)(f) Tank Condition Assessment: 724.295

Submit the schedule and procedure for assessing the condition of the tank. This procedure must be adequate to detect cracks, leaks, pitting or wall thinning to less than sufficient shell strength. In addition, describe the procedures for emptying the tank to allow entry and inspection of the interior to detect corrosion or erosion of the tank sides and bottom. Include a description of personnel protection procedures (e.g., use of two-person teams).

**Response:**

The leak test described in the response to Comment D-2f(2) is sufficient to assess the condition of the tank. In addition, the regular inspection (please see the revised inspection log) will address the aboveground portions of the tank.

**Comment:**

F-3a Equipment Requirements: 703.183, 724.132

All facilities must be equipped with the following equipment unless the applicant can demonstrate that none of the hazards posed by waste handled at the facility could require that particular kind of equipment. Document that the facility possesses the equipment listed below and provide a description of its capabilities, capacity, etc., as appropriate. Note: the location of this equipment must be identified in the Contingency Plan (Item G-5).

**Response:**

All required equipment in Section 724.132 is listed and described in the Preparedness and Prevention Plan and Emergency Equipment List in Appendix E. A reference to this list has been added to Section 4.2 in the Contingency Plan.

**Comment:**

F-3a(4) Water for Fire Control: 724.132(d)

Demonstrate that the facility has water at adequate volume and pressure to

supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems.

**Response:**

The requested information has been added to the Preparedness and Prevention Plan Abstract.

**Comment:**

F-4 Preventive Procedures, Structures and Equipment: 703.183(h)

Describe procedures, structures, or equipment used at the facility for the following:

F-4c Water Supplies: 703.183(h)(3)

Prevention of contamination of water supplies.

F-4e Personnel Protection Equipment: 703.183(h)(5)

Prevention of undue exposure of personnel to hazardous waste (e.g., protective clothing and equipment). Describe when it is used under daily operations and where it is stored.

**Response:**

The secondary containment structures at the service center will prevent the contamination of local private water supply wells. Protective clothing is listed in the Emergency Equipment List in Appendix E.

**Comment:**

F-5c Management of Ignitable or Reactive Wastes in Containers: 703.201(c) 724.276

Provide sketches, drawings, or data demonstrating that containers of ignitable or reactive waste are located at least 15 meters (50 feet) from the facility's property line.

**Response:**

The requested information has been added to the Site Plan in Appendix C.

**Comment:**

F-5e Management of Ignitable or Reactive Wastes in Tanks: 703.202(f), 724.298

Describe the operational procedures used for storing such wastes in tanks that includes specific information on: (1) how the waste is treated,

rendered, or mixed before or immediately after the placement in the tank so that it is no longer considered ignitable and complies with 724.117(b); or the waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to react or ignite; or the tank is used solely for emergencies; (2) how facilities that treat or store ignitable or reactive waste in covered tanks comply with the National Fire Protection Association's buffer zone requirements for tanks.

**Response:**

The waste stored in the tank is protected from material or conditions which may cause it to ignite by the procedures described in Section 3.4.3. The NFPA buffer zone requirements for underground tanks according to Section 2-8.1, Table 2-2 are no less than 25 feet for 12,000 gallon tanks.

G. **CONTINGENCY PLAN:** 703.183(g), 724.150 through 724.156, 724.152(b)

**Comment:**

Provide a copy of the Contingency Plan or Spill Prevention Control and Countermeasures (SPCC) Plan amended for hazardous waste management to describe the actions facility personnel will take in response to fires, explosions, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

**Response:**

The requested information is contained in Sections 4.2.1, 4.2.2, 4.3.1, 4.3.2 and 4.3.3. Safety-Kleen believes the Part B permit application meets the requirements for the SPCC Plan.

**Comment:**

G-1 General Information

Provide the facility name and location, operator, site plan and description of facility operations.

**Response:**

The facility description, the name and the location are pages 1 and 2 of the permit application. These pages, along with the site plan and the contingency plan have been sent to local emergency response teams.

**Comment:**

G-4i Container Spills and Leakage: 724.152, 724.271

Specify procedures to be used when responding to container leakage, including procedures and timing for expeditious removal of spilled waste and repair or replacement of the container(s) during daily operations.

**Response:**

The procedures to remediate minor spills are contained in section 4.3.1.

**Comment:**

G-4j(1) Tank Spills and Leakage: 724.294(c)(1)

Document the procedures to be used by the facility owner or operator to respond to tank leakage, including procedures and timing for expeditious removal of leaked or spilled waste and repair of the tank.

**Response:**

The procedures to remediate minor and major spills are in Sections 4.3.1 and 4.3.2 of the permit application. The tank evaluation and repair plan is section 3.4.4.

**Comment:**

G-5 Emergency Equipment: 724.152(e)

Describe the location and specifications of the emergency equipment.

**Response:**

This information is contained on the Emergency Equipment list in Appendix E, and has been referenced in Section 4.2 of the permit application.

**Comment:**

G-7 Evacuation Plan: 724.152(f)

Describe signal(s) to be used to begin evacuation and identify primary and alternate evacuation routes on a site plan.

**Response:**

A verbal cry to evacuate the facility will be given. This information has been added to Section 4.4. In addition, an Evacuation Plan has been added to Appendix E.

I. **CLOSURE AND POST-CLOSURE REQUIREMENTS:** 703.183(M), 724.210 through 724.220

**Comment:**

I-1d Inventory Removal, Disposal or Decontamination of Equipment, Structures and Soils: 724.212(b)(4), 724.214

Describe how all facility soils will be decontaminated or disposed when closure is completed.

**Response:**

Section 6.2.3(d) has been revised to include this information.

**Comment:**

I-1d(1) Closure of Containers: 724.278

Show that at closure, all hazardous waste and hazardous waste residue will be removed from the return and fill station and how liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues will be decontaminated or removed.

**Response:**

The secondary containment, consisting of the concrete pad and curbing, will prevent the surrounding soil from becoming contaminated. In addition, the drain located in the center of the concrete pad is connected to the used solvent storage tank. This system contains spillage which may occur during the drum emptying operation.

The concrete pad will be decontaminated with a detergent solution and inspected to determine the completeness of the cleaning. This information has been added to Section 6.4. In addition, a description of the soil sampling plan and soil removal has been added to section 6.4.

**Comment:**

I-1d(2) Closure of Tank Systems: 724.297, 724.410

Show that at closure, the owner or operator shall remove or decontaminate contaminated soils, structures and equipment. If all of the contaminated soils cannot be practicably removed or decontaminated, the tank system must close, perform post-closure care, and provide financial assurance in accordance with the requirements for landfills. If the tank system does not have a secondary containment system which meets Part 724 standards and has not been granted alternative design or operation under 724.293(g), the closure plan must incorporate the contingency that the tank system will be closed as a landfill and must also include a contingent post-closure plan and financial assurance for post-closure care.

**Response:**

The above information has been added to section 6.5 of the closure plan.

**Comment:**

I-3 Notice in Deed and Certification: 703.183(n), 724.216, 724.217(c), 724.219

Existing facilities must submit a copy of the notice or notation recorded in deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that (1) the land has been used to manage hazardous wastes; (2) its use is restricted; and (3) the survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility has been filed with the County Recorder, to any local zoning authority or the authority with jurisdiction over local land use and the with Agency. For hazardous wastes disposed prior to January 12, 1981, identify the type, location and quantity of hazardous waste to the best of the owner or operator's knowledge and in accordance with any records the owner or operator has kept. Submit a certification to the Agency, signed by the owner or operator, that the owner or operator has properly recorded this certification.

**Response:**

Safety-Kleen's environmental and legal staffs are currently developing a form to meet this requirement. The form will be forwarded to your office upon completion.

**Comment:**

I-5d Closure Insurance: 724.243(e), 40 CFR 264.151(e)

Provide a copy of the certificate of insurance with the wording required in 40 CFR 264.151(e).

**Response:**

The Certificate of Liability insurance is enclosed.

**Comment:**

I-5e Financial Test and Corporate Guarantee for Closure: 724.243(f), 724.251(f), 40 CFR 264.151(h)

Submit a letter signed by the owner's or operator's chief financial officer and worded as specified by 40 CFR 264.151(f), a copy of the independent certified public accountant's report on examination of the applicant's financial statements for the latest fiscal year, and a special report from the certified public accountant. If a parent company is guaranteeing closure for a subsidiary facility, the corporate guarantee must accompany the preceding items.

**Response:**

The requested information is in Appendix H of the permit application.

J. OTHER FEDERAL LAWS: 703.183(t)

**Comment:**

Demonstrate compliance with the requirements of applicable Federal laws such as the Wild and Scenic Rivers Act, National Historic Preservation Act of 1966, Endangered Species Act, Coastal Zone Management Act, and Fish and Wildlife Coordination Act.

**Response:**

Safety-Kleen does not believe any of the laws listed above affect this facility since it is not in or near any scenic rivers, historic sites, endangered species, coasts or wildlife areas.

K. **PART B CERTIFICATION:** 703.182

**Comment:**

K-1 Facility Certification: 702.126

Applications must be accompanied by a certification letter as specified in 702.126(d). The required signatures are as follows: (1) for a corporation, a principal executive officer (at least at the level of vice-president); (2) for a partnership or sole proprietorship, a general partner or proprietor, respectively; (3) for a municipal, state, federal, or other public agency, either a principal executive officer or ranking elected official.

**Response:**

The requested certification is contained on Page ii of the permit application.

**Comment:**

K-2 Engineering Certification: 703.182, Illinois Professional Engineering Act

Technical data, such as design drawings, specifications and engineering studies, must be certified (sealed) by a Professional Engineer who is licensed to practice in the State of Illinois in accordance with Ill. Rev. Stat., par. 5101, Sec. 1 and par. 5119, Sec. 13.1.

**Response:**

All pertinent design drawings are being reviewed by a professional engineer registered in Illinois. The certified drawings will be sent to your office upon receipt.

L. **CONTINUING RELEASES AT PERMITTED FACILITIES [3004(U)]**

**Comment:**

L-1 Solid Waste Management Units

Identify each solid waste management unit at the facility. A solid waste management unit is any unit which is not a "regulated unit" and may include any of the following:

- Landfill
- Surface impoundment
- Waste pile
- Land treatment unit
- Injection well
- Incinerator
- Tank (including wastewater treatment units, elementary neutralization units, and tanks used in reuse/recovery operations)
- Container
- Storage area, transfer station or waste recycling operation.

**Response:**

There are no solid waste management units at the Mokena service center. The service center does not generate any material which meets the definition of "waste" (Ill. Adm. Code 35, Section 807.104).

**Comment:**

L-1a Characterize the Solid Waste Management Unit

For each solid waste management unit, submit the following information:

- Type of each unit
- Location of each existing or closed unit on the topographic map. [see comment B-2.]
- Engineering drawings for each unit, if available
- General dimensions of each unit
- Dates when the unit was in operation
- Description of the wastes placed in each unit
- Quantity or volume of waste, if known

**Response:**

Please see the response to Comment L-1 above.

**Comment:**

L-1b No Solid Waste Management Units

Provide evidence supporting the conclusion that no solid waste management units exist at the facility.

**Response:**

Please see the response to Comment L-1 above.

**Comment:**

L-2 Releases

Provide all information available on whether or not any releases have occurred from any of the solid waste management units at the facility. Reasonable efforts to identify releases must be made, even if releases have not been verified. (A release may include: spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment. It does not include releases otherwise permitted or authorized under law or discharges into the injection zone of a UIC permitted class I injection well.)

**Response:**

No releases are known to have occurred at the Mokena service center.

**Comment:**

L-2a Characterize Releases

Information on releases must include the following types of available information concerning prior or current releases:

Date of the release

Type of waste or constituent released

Quantity or volume released

Nature of the release

-Spill
-Overflow
-Ruptured pipe or tank
-Other

Groundwater monitoring and other analytical data available to describe nature and extent of release. If other than groundwater monitoring data, please describe.

Physical evidence of distressed vegetation or soil contamination

Historical evidence of releases such as tanker truck accidents

Any state, local or Federal enforcement actions which may address releases

Any public citizen complaints about the facility which could indicate a release

Any information showing the migration of the release.

**Response:**

Please see the response to Comment L-2 above.

**Comment:**

L-2b No Releases

Provide evidence supporting the conclusion that no releases from solid waste management units exist at the facility.

**Response:**

The Certification Regarding Potential Releases From Solid Waste Management Units form has been attached. This form indicates that no releases are known to have occurred at this facility prior to the date indicated (2/11/86). The spill report telephone logs maintained by the Environmental Affairs Department have been examined, from February, 1986 to the present, and no record of a release at this facility exists.

safety-kleen®

Certified Mail - Return Receipt Requested

May 24, 1988
PMV 88-154

Mr. Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

Subject: Mokena Service Center
ILD 000665851
Part B

Dear Mr. Eastep:

This letter is to acknowledge receipt of your May 6, 1988 notification letter of the November 8, 1988 deadline for submittal of the subject facility's Part B permit application.

The permit application for the Mokena service center was submitted on February 11, 1988.

If you have any questions, please contact me on extension 2550.

Sincerely,

Paula M. Ventura

Paula M. Ventura
Environmental Permit Writer

PMV/dfs

cc: U.S. EPA, Region V ✓



777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 312/697-8460 TELEX 910 251 4479

Illinois Environmental Protection Agency 2200 Churchill Road, Springfield, IL 62706

217/782-6762

Refer to: 1970600001 -- Will
Safety Kleen -- Mokena
ILD000665851
RCRA Permit LOG 95

March 17, 1988

Safety Kleen
Attn.: Ellen Jurczak
777 Big Timber Rd.
Elgin, IL 60123

Gentlemen:

The Illinois Environmental Protection Agency has reviewed Part B of the RCRA permit application for the above-referenced facility. A list of the deficiencies identified during this review is enclosed.

Each of the deficiencies must be addressed before this Agency can complete the review of your permit application. The response should be in a format which allows incorporation of the new information into the appropriate sections of your application and it must be submitted in quadruplicate. To allow for a proper review of this new information, the location of the response to each deficiency should be identified in a list cross-referencing these items.

A certification identical to that outlined in 35 Ill. Adm. Code 702.126 must accompany your submission. The original and three copies of the new information and certification should be submitted to the following address:

Illinois Environmental Protection Agency
Division of Land Pollution Control -- #24
Permit Section
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

If you have any questions regarding this subject, feel free to contact Marla Laymon of my staff at 217/782-6762.

Very truly yours,

Lawrence W Eastep by AZ

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:ML:ct/710j,35

Enclosure

cc: Division File
Northern Region
Karl E. Bremer, USEPA

449-3

Illinois Environmental Protection Agency

March 17, 1988

Completeness Deficiencies

Facility Name: Safety Kleen
Mokena, IL
ILD000665851 (State I.D. 1970600001)

A. Part A Application: 702.123, 702.126(a) and (d), 703.181

The application has failed to provide the following information as required of the sections above:

1. A topographic map was not provided as required in Section 702.123.

Section 702.123 requires a topographic map or maps of the area extending to at least one mile beyond the property boundaries of the facility which clearly shows the following:

The legal boundaries of the facility; the location and serial number of each of your existing and proposed intake and discharge structure; all hazardous waste management facilities; each well where you inject fluids underground; and all springs and surface water bodies in the area plus all drinking water wells within 1/4 mile of the facility which are identified in the public records or otherwise known to you.

If an intake or discharge structure, hazardous waste disposal site, or injection well associated with the facility is located more than 1 mile from the plant, include it in the map if possible. If not, attach additional sheets describing the location of the stucture, disposal site, or well, and identify the US Geological Survey (or other) map corresponding to the location.

On each map, include the map scale, a meridan arrow showing north and latitude and longitude at the nearest whole second. On all maps of the rivers, show the direction of the current, and in tidal waters, show the direction of ebb and flow tides. Use a 7-1/2 minute series map published by the US Geological Survey, which may be obtained through the US Geological Survey Office. If a 7-1/2 minute series map has not been published for your facility site, then you may use a 15 minute series. If neither a 7-1/2 nor a 15 minute series map has been published for your site, use a plat map or other appropriate map, including all requested information; in this case, briefly described land use in the map area (e.g., residential, commercial).

2. Your facility site plan did not provide the following information as required in Section 703.181;

a. Did not outline the property boundaries.

b. Did not name each storage or disposal area/unit (example: drum storage area 1, tanks 1-20, etc.).

c. Did not label all past storage, treatment or disposal operations.

d. Did not label all future storage, treatment or disposal operations.

e. Did not provide approximate dimension for storage, treatment or disposal operations, including all past, present and future areas.

3. You did not provide photographs of existing and future units and structures as required in Section 703.181.

All existing facilities must include photographs that clearly delineate all existing structures; all existing areas of storage, treatment, or disposal of hazardous waste; and all known sites of future storage, treatment or disposal operation. Photograph may be color or black and white, groundlevel or aerial. Indicate the date the photograph was taken on the back of each picture.

B. Facility Description

B-2a General Map Requirements: 703.183(s)

The map must show the facility and a distance of 1,000 feet around it, at a scale of 1 inch equal to not more than 200 feet. The map must include: contours sufficient to show surface water flow around facility unit operations, 100-year floodplain area, surface waters, surrounding land uses, map orientation, and legal boundaries of facility site. The map should also indicate the injection and withdrawal wells, buildings, structures, sewers, loading and unloading areas, fire control facilities, flood control or drainage barriers, run-off control systems, and (proposed) new and existing hazardous waste operation units and solid waste management units. Multiple maps may be submitted to meet the above requirements, if necessary, but should be at a scale of 1 inch equal to not more than 200 feet. The maps provided were of poor quality and illegible. Many of the maps did not have dates, map orientation, scales and what organization published the map.

B-3b Floodplain Standard: 703.184(c), 724.118(b)

Document whether or not the facility is located within a 100-year floodplain, and include the source of data (Federal Insurance Administration Map or equivalent maps and calculations).

B-3b(1) Demonstration of Compliance: 703.184(d), 724.118(b)

For facilities located within the 100-year floodplain, describe how the facility is designed, constructed, operated, and maintained to prevent washout of any hazardous waste during a flood.

B-3b(1)(a) Flood Proofing and Flood Protection Measures: 703.184(d)(1) and (d)(2)

Provide a structural or other engineering study showing how the design of the hazardous waste units and the flood proofing and protection devices at the facility will prevent washout.

B-3b(1)(b) Flood Plan: 703.184(d)(3), 724.118(b)(1)(A)

Describe the procedures to be followed to remove hazardous waste to a safe location before the facility is flooded, including timing related to flood levels, estimated time to move the waste, the location to which the waste will be moved, demonstration that those facilities will be eligible to receive hazardous waste, the planned procedures, equipment, and personnel to be used, and the potential for accidental discharge of the waste during movement.

B-4 Traffic Information: 703.183(j)

Provide the following traffic-related information:

- Traffic patterns on site;
- Estimated volumes, including number and types of vehicles;
- Traffic control signs, signals and procedures; and

C. Waste Characteristics

C-3 Quality Assurance: 702.145

Provide a quality assurance plan, in accordance with the standards established in the Third Edition of SW-846, for laboratory analysis of wastes and groundwater.

D. Process Information

D-1a(1) Description of Containers: 724.271, 724.272

Provide the following information about the containers used to treat or store hazardous waste: approximate number of each type of container, usable volumes, DOT specifications or other manufacturer specifications, liner specifications (if applicable), container condition (new, used, reconditioned), and markings and labels.

D-1a(2) Container Management Practices: 724.273

Describe container management practices used to ensure that hazardous waste containers are not opened, handled, or stored in a manner that may cause them to rupture or to leak. Include a discussion of procedures for transporting containers within the facility. Indicate the aisle space maintained between rows of containers and provide the maximum number, volume and stacking height of each kind of container for each area in which containers are stored.

D-1a(3)(a) Requirement for the Base or Liner to Contain Liquids: 724.275(a)(1)

Demonstrate the capability of the base to contain liquids, including:

- A statement that the base is free of cracks or gaps;
- Demonstration of imperviousness of base to wastes and precipitation;
- Base design and materials of construction;
- An engineering evaluation of the base's structural integrity; and
- Discussion of compatibility of the base with wastes.

D-1a(3)(b) Containment System Drainage: 703.201(a)(2), 724.275(b)(2)

The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation.

D-1a(3)(c) Containment System Capacity: 703.201(a)(3), 724.275(b)(3)

Provide calculations which demonstrate that the containment system for the return and fill station will have sufficient capacity to contain at least 10 percent of the volume of the containers or the volume of the largest container, whichever is greater. This demonstration must discuss the volume of the largest container, total volume of containers, containment structure capacity, and volume displaced by containers and other structures in the containment system.

D-1a(3)(d) Control of Run-on: 703.201(a)(4), 724.275(b)(4)

Run-on into the containment system for the return and fill station must be prevented unless the collection system has sufficient excess capacity in addition to that required in the above paragraph to contain any run-on that might enter the system. Describe the dikes, berms, drainage system, etc., used to prevent run-on, or provide calculations demonstrating that the containment system has sufficient excess capacity to contain run-on. A 24-hour, 25-year storm event can be used as the basis for the calculations.

D-2 Tank Systems

The following items must be provided for all tank systems. Note that a tank system includes the tank and its associated ancillary equipment and containment system. You declared that your tank is an underground tank, but all the information you provided was for above ground tanks.

D-2a Existing Tank Systems

D-2a(1) Assessment of Existing Tank System's Integrity: 703.202(a), 724.292

Provide a written assessment that is reviewed and certified by an independent, qualified, registered professional engineer, on the structural integrity and suitability of each tank system for handling hazardous waste. At a minimum, this assessment must consider the following: (1) design standard(s), if available according to which the tank and ancillary equipment were constructed; (2) hazardous characteristics of the wastes that have been and will be handled; (3) documented age of the tank system, if available (otherwise, an estimate of the age); and (4) results of a leak test, internal inspection, or other tank integrity examination.

D-2a(2) External Corrosion Protection: 703.202(e), 724.292(b)(3)

Describe corrosion protection measures used to ensure continued structual integrity and suitability of each tank system for handling hazardous waste.

D-2f Containment and Detection of Releases: 724.293

Secondary containment meeting the requirements of 35 IAC 724.293(b) - (f) (see Items D-2f(1)(b) through D-2f(1)(d) below) must be provided for:

1. All new tank systems or components, prior to their being put into service;

2. All existing tank systems used to store or treat Hazardous Waste Numbers F020, F021, F022, F023, F026 or F027, as defined in 35 IAC 721.131, by January 12, 1989;

3. Those existing tank systems of known and documented age, prior to January 12, 1989, or when the tank system has reached fifteen (15) years of age, whichever comes later;

4. Those existing tank systems for which the age cannot be documented, prior to January 12, 1995; but if the age of the facility is greater than seven (7) years, secondary containment must be provided by the time the facility reaches fifteen (15) years of age, or prior to January 12, 1989, whichever comes later; and

5. Tank systems that store or treat materials that become hazardous wastes subsequent to January 12, 1987, within the following time frames (from the date that the material becomes a hazardous waste):

   a. Prior to new tanks being placed into service;

   b. Within two (2) years if Case 2 (above) applies;

   c. Within two (2) years or when the tank system has reached fifteen (15) years of age, whichever comes later, if Case 3 (above) applies; or

d. Within eight (8) years or, if the age of the facility is greater than seven (7) years, by the time the facility reaches fifteen (15) years of age, whichever is later, if Case 4 (above) applies.

Exemptions to this requirement are provided in 35 IAC 724.293(f) (see Item D-2f(1)(d) below) and 35 IAC 724.293(g) (see Item D-2f(3) below). If an existing tank system does not have a secondary containment system meeting the requirements of 35 IAC 724.293(b) - (f) and has not been granted alternative design or operation under 35 IAC 724.293(g), the closure plan for that tank system must include a contingency for:

1. Closure of the unit as a landfill; and

2. Post-closure care and monitoring for the unit as a landfill (see Item I-1d(2)).

The closure cost estimates prepared for this unit in accordance with 35 IAC 724.242 must reflect the costs of this contingent closure/post-closure plan if the cost of these activities is greater than the cost of decontaminating the tank system and the surrounding area. These estimates must then be used to establish the amount of financial assurance which is to be provided to meet the requirements of 35 IAC 724.243.

D-2f(1) Plans and Description of the Design, Construction, and Operation of the Secondary Containment System for Each Tank System: 724.293(b)-(f), 703.202(g)

D-2f(1)(a) Tank Age Determination: 724.293(a), 703.202(g)

Specify the age of all existing tank systems so that the Agency can determine when requirements for secondary containment and leak detection will take effect. If the age of a tank system cannot be determined, indicate the reason.

D-2f(1)(b) Requirements for Secondary Containment and Leak Detection: 724.293(b)-(c), 703.202(g)

Demonstrate that the secondary containment system has been (will be) designed, installed and operated to prevent any migration of waste or accumulated liquid from the tank system to the soil, groundwater, or surface water at any time during its use. Also, demonstrate that the secondary containment system can detect and collect releases and accumulated liquids. This demonstration must include at least the following:

. Specify the materials of construction used to construct or line the system. Show that these materials are compatible with the wastes in the tank system.

. Demonstrate that the system has sufficient strength and thickness to prevent failure caused by any of the following:

-- pressure gradients (including static head and external hydrological forces);

-- physical contact with the wastes;

-- climatic conditions; and

-- stresses from daily operation (including stresses from nearby vehicular traffic).

. Present calculations to prove that the secondary containment system is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

. Provide a description of the leak detection system, including its operating principle, design features and operating procedures. Demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then specify the earliest practical time that detection can take place. Indicate why this longer period does not pose a threat to human health and the environment.

. Show how the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

. Document how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then specify the earliest practical time that removal can take place. Indicate why this longer period does not pose a threat to human health and the environment.

D-2f(1)(d) Secondary Containment and Leak Detection Requirements for Ancillary Equipment: 703.202(g), 724.293(f)

Ancillary equipment is defined as any device including, but not limited to, such devices as piping, fittings, flanges, valves and pumps, that are used to distribute, meter or control the flow of waste:

a. from its point of generation to storage or treatment tanks;

b. between waste storage and treatment tanks to a point of disposal on-site; or

c. between waste storage and treatment tanks to a point of shipment for disposal off-site

The ancillary equipment associated with each tank system must be provided with a secondary containment system as described in the following paragraphs, except for:

1. Aboveground piping (exclusive of flanges, joints, valves and other connections) that are visually inspected for leaks on a daily basis;

2. Welded flanges, welded joints and welded connections, that are visually inspected for leaks on a daily basis;

3. Sealless or magnetic coupling pumps, that are visually inspected for leaks on a daily basis; and

4. Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

Demonstrate that each tank system's ancillary equipment is provided with secondary containment such as jacketing, double-walled piping, or a trench. Describe the containment system, and demonstrate that it has been (will be) designed, installed and operated to prevent any migration of waste or accumulated liquid to the soil, groundwater or surface water at any time during its use. Also, demonstrate that the containment system can detect and collect releases and accumulated liquids. This demonstration must include at least the following:

- Specify the materials of construction used to construct or line the system. Show that these materials are compatible with the wastes in the tank system.

- Demonstrate that the system has sufficient strength and thickness to prevent failure caused by any of the following:

  -- pressure gradients (including static head and external hydrological forces)

  -- physical contact with the wastes

  -- climatic conditions

  -- stress of daily operation (including stresses from nearby vehicular traffic).

- Present calculations to prove that the secondary containment is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

- Provide a description of the leak detection system, including its operating principle, design features and operating procedures. Demonstrate that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty four (24) hours. If the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours, then specify the earliest practical time that detection can take place. Indicate why this longer period does not pose a threat to human health and the environment.

- Show how the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.

- Document how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within twenty four (24) hours. If wastes and precipitation cannot be removed within 24 hours, then specify the earliest practical time that removal can take place. Indicate why this longer period does not pose a threat to human health and the environment.

D-2f(2) Requirements for Tank Systems Until Secondary Containment is Implemented: 724.293(i)

For non-enterable underground tanks, present the results of a leak test (or other tank integrity test approved by the Agency). Indicate the procedures that will be repeated annually until secondary containment is provided. For other than non-enterable underground tanks, provide the results of a leak test or present a schedule and procedures for assessing the overall condition of the tank system by an independent, qualified, registered professional engineer until secondary containment is provided. For ancillary equipment, present the results of a leak test or other integrity assessment measures approved by the Agency. Indicate the procedures that will be used to ensure that such tests will be repeated annually until secondary containment is provided.

F-2 Inspection Schedule: 703.183(e), 724.115

F-2b(2)(f) Tank Condition Assessment: 724.295

Submit the schedule and procedure for assessing the condition of the tank. This procedure must be adequate to detect cracks, leaks, pitting or wall thinning to less than sufficient shell strength. In addition, describe the procedures for emptying the tank to allow entry and inspection of the interior to detect corrosion or erosion of the tank sides and bottom. Include a description of personnel protection procedures (e.g., use of two-person teams).

F-3a Equipment Requirements: 703.183, 724.132

All facilities must be equipped with the following equipment unless the applicant can demonstrate that none of the hazards posed by waste handled at the facility could require that particular kind of equipment. Document that the facility possesses the equipment listed below and provide a description of its capabilities, capacity, etc., as appropriate. Note: The location of this equipment must be identified in the Contingency Plan (Item G-5).

F-3a(4) Water for Fire Control: 724.132(d)

Demonstrate that the facility has water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems.

F-4 Preventive Procedures, Structures and Equipment: 703.183(h)

Describe procedures, structures, or equipment used at the facility for the following:

F-4c Water Supplies: 703.183(h)(3)

Prevention of contamination of water supplies.

F-4e Personnel Protection Equipment: 703.183(h)(5)

Prevention of undue exposure of personnel to hazardous waste (e.g., protective clothing and equipment). Describe when it is used under daily operations and where it is stored.

F-5c Management of Ignitable or Reactive Wastes in Containers: 703.201(c), 724.276

Provide sketches, drawings, or data demonstrating that containers of ignitable or reactive waste are located at least 15 meters (50 feet) from the facility's property line.

F-5e Management of Ignitable or Reactive Wastes in Tanks: 703.202(f), 724.298

Describe the operational procedures used for storing such wastes in tanks that includes specific information on: (1) how the waste is treated, rendered, or mixed before or immediately after the placement in the tank so that it is no longer considered ignitable and complies with 724.117(b); or the waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to react or ignite; or the tank is used solely for emergencies; (2) how facilities that treat or store ignitable or reactive waste in covered tanks comply with the National Fire Protection Association's buffer zone requirements for tanks.

G. CONTINGENCY PLAN: 703.183(g), 724.150 through 724.156, 724.152(b)

Provide a copy of the Contingency Plan or Spill Prevention Control and Countermeasures (SPCC) Plan amended for hazardous waste management to describe the actions facility personnel will take in response to fires, explosions, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

G-1 General Information

Provide the facility name and location, operator, site plan, and description of facility operations.

G-4i Container Spills and Leakage: 724.152, 724.271

Specify procedures to be used when responding to container leakage, including procedures and timing for expeditious removal of spilled waste and repair or replacement of the container(s) during daily operations.

G-4j(1) Tank Spills and Leakage: 724.294(c)(1)

Document the procedures to be used by the facility owner or operator to respond to tank leakage, including procedures and timing for expeditious removal of leaked or spilled waste and repair of the tank.

G-5 Emergency Equipment: 724.152(e)

Describe the location and specifications of the emergency equipment.

G-7 Evacuation Plan: 724.152(f)

Describe signal(s) to be used to begin evacuation and identify primary and alternate evacuation routes on a site plan.

I. CLOSURE AND POST-CLOSURE REQUIREMENTS: 703.183(m), 724.210 through 724.220

I-1d Inventory Removal, Disposal or Decontamination of Equipment, Structures and Soils: 724.212(b)(4), 724.214

Describe how all facility soils will be decontaminated or disposed when closure is completed.

I-1d(1) Closure of Containers: 724.278

Show that at closure, all hazardous waste and hazardous waste residue will be removed from the return and fill station and how liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues will be decontaminated or removed.

I-1d(2) Closure of Tank Systems: 724.297, 724.410

Show that at closure, the owner or operator shall remove or decontaminate contaminated soils, structures and equipment. If all of the contaminated soils cannot be practicably removed or decontaminated, the tank system must close, perform post-closure care, and provide financial assurance in accordance with the requirements for landfills. If the tank system does not have a secondary containment system which meets Part 724 standards and has not been granted alternative design or operation under 724.293(g), the closure plan must incorporate the contingency that the tank system will be closed as a landfill and must also include a contingent post-closure plan and financial assurance for post-closure care.

I-3 Notice in Deed and Certification: 703.183(n), 724.216, 724.217(c), 724.219

Existing facilities must submit a copy of the notice or notation recorded in the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that (1) the land has been used to manage hazardous wastes; (2) its use is restricted; and (3) the survey plat and record of the type, location, and quantity of hazarouds wastes disposed of within each cell or area of the facility has been filed with the County Recorder, to any local zoning authority or the authority with jurisdiction over local land use and with the Agency. For hazardous wastes disposed prior to January 12, 1981, identify the type, location and quantity of the hazardous waste to the best of the owner or operator's knowledge and in accordance with any records the owner or operator has kept. Submit a certification to the Agency, signed by the owner or operator, that the owner or operator has properly recorded this certification.

I-5d Closure Insurance: 724.243(e), 40 CFR 264.151(e)

Provide a copy of the certificate of insurance with the wording required in 40 CFR 264.151(e).

I-5e Financial Test and Corporate Guarantee for Closure: 724.243(f), 724.251(f), 40 CFR 264.151(h)

Submit a letter signed by the owner's or operator's chief financial officer and worded as specified by 40 CFR 264.151(f), a copy of the independent certified public accountant's report on examination of the applicant's financial statements for the latest fiscal year, and a special report from the certified public accountant. If a parent company is guaranteeing closure for a subsidiary facility, the corporate guarantee must accompany the preceding items.

J. OTHER FEDERAL LAWS: 703.183(t)

Demonstrate compliance with the requirements of applicable Federal laws such as the Wild and Scenic Rivers Act, National Historic Preservation Act of 1966, Endangered Species Act, Coastal Zone Management Act, and Fish and Wildlife Coordination Act.

K. PART B CERTIFICATION: 703.182

K-1 Facility Certification: 702.126

Applications must be accompanied by a certification letter as specified in 702.126(d). The required signatures are as follows: (1) for a corporation, a principal executive officer (at least at the level of vice-president); (2) for a partnership or sole proprietorship, a general partner or the proprietor, respectively; (3) for a municipal, state, Federal, or other public agency, either a principal executive officer or ranking elected official.

K-2 Engineering Certification: 703.182, Illinois Professional Engineering Act

Technical data, such as design drawings, specifications and engineering studies, must be certified (sealed) by a Professional Engineer who is licensed to practice in the State of Illinois in accordance with Ill. Rev. Stat., par. 5101, Sec. 1 and par. 5119, Sec. 13.1.

L. CONTINUING RELEASES AT PERMITTED FACILITIES [§3004(U)]

L-1. Solid Waste Management Units

Identify each solid waste management unit at the facility. A solid waste management unit is any unit which is not a "regulated unit" and may include any of the following:

- Landfill
- Surface impoundment
- Waste pile
- Land treatment unit
- Injection well
- Incinerator
- Tank (including wastewater treatment units, elementary neutralization units, and tanks used in reuse/recovery operations)
- Container
- Storage area, transfer station or waste recycling operation.

L-1a Characterize the Solid Waste Management Unit

For each solid waste management unit, submit the following information:

- Type of each unit
- Location of each existing or closed unit on the topographic map. [See comment B-2.]
- Engineering drawings for each unit, if available
- General dimensions of each unit
- Dates when the unit was in operation
- Description of the wastes placed in each unit
- Quantity or volume of waste, if known

L-1b No Solid Waste Management Units

Provide evidence supporting the conclusion that no solid waste management units exist at the facility.

L-2 Releases

Provide all information available on whether or not any releases have occurred from any of the solid waste management units at the facility. Reasonable efforts to identify releases must be made, even if releases have not been verified. (A release may include: spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment. It does not include releases otherwise permitted or authorized under law or discharges into the injection zone of a UIC permitted class I injection well.)

L-2a Characterize Releases

Information on releases must include the following types of available information concerning prior or current releases:

- Date of the release
- Type of waste or constituent released
- Quantity or volume released
- Nature of the release
  - -- Spill
  - -- Overflow
  - -- Ruptured pipe or tank
  - -- Other

- Groundwater monitoring and other analytical data available to describe nature and extent of release. If other than groundwater monitoring data, please describe.

- Physical evidence of distressed vegetation or soil contamination

- Historical evidence of releases such as tanker truck accidents

- Any state, local or federal enforcement actions which may address releases

- Any public citizen complaints about the facility which could indicate a release

- Any information showing the migration of the release.

L-2b No Releases

Provide evidence supporting the conclusion that no releases from solid waste management units exist at the facility.

ML:ct/710j,35-50

Log 95-Part B

safety-kleen®

RECEIVED
FEB 22 1988
U. S. EPA, REGION V
SWB — PMS

Certified Mail - Return Receipt Requested

February 11, 1988
EJJ 88-126

Mr. Lawrence W. Eastep
Manager, Permit Section
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

Subject: Mokena Service Center
Part B Permit Application

Dear Mr. Eastep:

Pursuant to 35 Illinois Administrtive Code 703.121, Safety-Kleen Corp. is submitting a Part B permit application to store hazardous wastes in a tank and in containers at its facility in Mokena. The enclosed contains the text and support documents (including a Part A permit application) necessary to meet the requirements set forth in Title 35 of the Illinois regulations.

If you have any questions or require further information, please contact me on extension 2246.

Sincerely,

Ellen J. Kurczak, P.E.
Environmental Engineer/
Permits Manager

EJJ/dfs

Enclosures

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COPY 2

777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 312/697-8460 TELEX 910 251 4479

PART B DOCKET LOG

Please print

Facility Safety-Kleen Corp. Service Center

ID # ILD 000 665 851

| Item # | Item Date | Description | Item Filed * |
|---|---|---|---|
| 449 | 2-22-88 | LOG | Sec. 1 |
| 449-2 | 2/22/88 | Part B application w/letter from E.J. Jurczak to L. Eastep | Folder 2 |
| 449-3 | 3/17/88 | ~~IEPA~~ Letter IEPA to E Jurczak IEPA review of Part B | Section 2 |

449-1

* Folder 1 is arranged by sections.